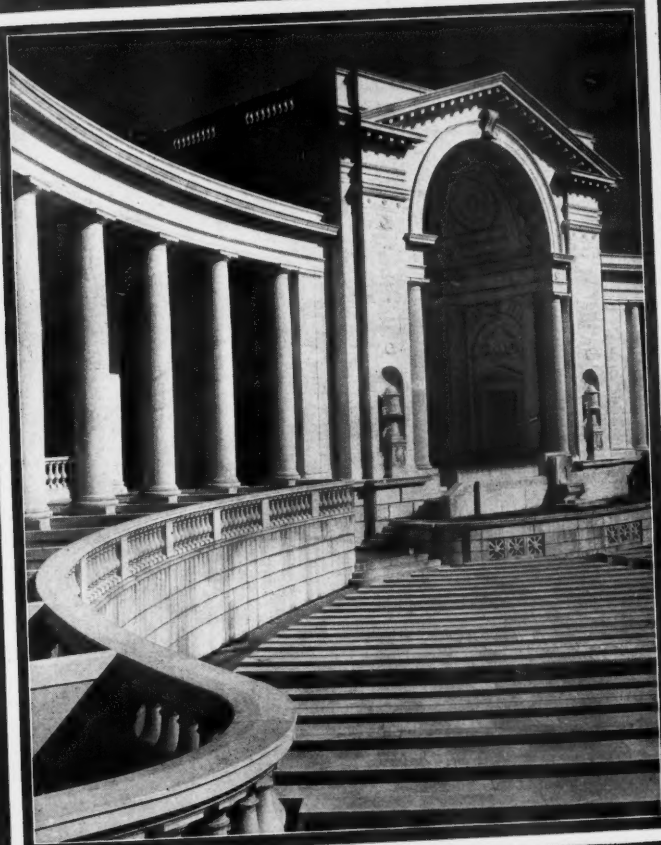


# THE DENTAL DIGEST

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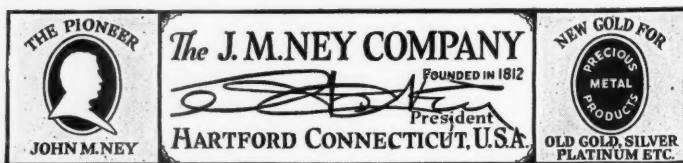
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# THE DENTAL DIGEST

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## Accidents and Infections Following Novocain Anesthesia, With Particular Reference to the Mandibular Injection

By Leo Winter, D.D.S., New York City

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Oral Surgeon, Flower Hospital; Visiting Dentist, Harlem Hospital (Bellevue and  
Allied Hospitals); Visiting Dentist, New York Foundling Hospital.

Within the last few years reports of infections and accidents following novocain anesthesia have been on the increase. Were a more careful history and physical examination of the patient made, it would be found that the majority of these cases were really dormant abscesses, which were operated upon during the second stage of their progress and reached the third stage only after the extraction of the offending tooth. It must be clearly borne in mind that the removal of a tooth does not necessarily clear up an abscessed condition. It is of the utmost importance that a careful diagnosis be made, for if the report that the use of novocain causes accidents and infections gains ground its use will be discouraged and this will indeed be a sad day for the profession. The rumors are not limited to the laity, for Browning in his "Oral Diseases and Malformations," Page 72, states: "The author, however, fears local anesthesia chiefly because of the danger of carrying infection into the tissues and because the large quantity of the anesthetic required for the removal of deeply embedded teeth has often caused local necrosis and serious general effects."

The above statement cannot be condemned too strongly, because, in the first place, the proper administration of the anesthetic would eliminate any danger of carrying any infection further and, secondly, but a small quantity would be required. That there would be an increase in the number of accidents and infections is but a natural result, due to the increase in the number of operators using it. The fact that eighteen years after its introduction novocain has found its way into every important clinic and has, in general use, practically superseded all other soluble local anesthetics is a sufficient testimonial to its value in therapy. This obvious conclusion is confirmed by strict scientific comparisons of all the proposed local anesthetics by authorities who have published their results from time to time. Along these lines such authorities may be mentioned as Braun, Fischer and Le Brocq,

whose report to the Therapeutic Commission of the British Medical Association on the local anesthetics recommended as substitutes for cocaine, covering a comparative study of stovain, novocain, tropacocain, eucain-B, alypin, holocain, acoin, orthoform, anesthesin and cocaine, concludes that of all the drugs examined novocain is the most suitable for general use.

Novocain has also been condemned because of a few cases of dermatitis on the hands of some operators. Circumstantial evidence seems to trace the condition directly to the use of this drug, for the discontinuance of its use has resulted in the disappearance of the malady. However, let us ask ourselves what right novocain has on the



Figure 1 illustrates the retro-ptyergoid space. Shows how an instrument inserted on the lingual aspect of the lower jaw just posterior to the third molar will meet no obstruction, passing through a space which contains little but connective tissue.

operator's hands. And the answer will always be that it is due to a leaky syringe. Well, why use a faulty instrument? Phenol would be a detrimental agent on our hands, yet when properly used it is an invaluable therapeutic agent.

We will first take up the subject of infections.

#### CAUSES

The causes of infections following mandibular anesthesia, with novocain, may be divided into five groups, as follows:

*First Group.* Faulty technic, such as the injection on the lingual surface of lower third molars, particularly in cases of pericoronal infec-



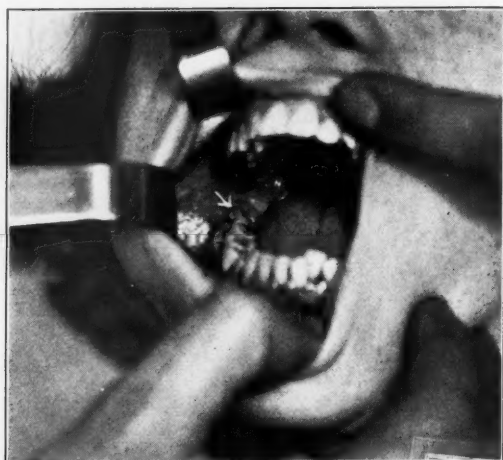
tions. This condition is undoubtedly the prime causative factor of infections following injections. Operators will be careful to fix the



Figure 2 shows external view of same cadaver, with instrument in position showing how this space communicates with outside of face.

bacteria in the region of the retromolar triangle before making the initial injection. Then quizzing the patient to determine whether the various symptoms are manifest will test the sensibility of the mucous membrane in the region which is about to be operated upon, and the

particular portion which is sensitive will receive another injection without, however, preparing the surface. If this injection be made on the lingual surface of a third molar where there is pus present, then some of the purulent material may be forced down into the deeper structures and an infection is sure to follow. This would result regardless of the substance used, whether it be novocain or water. This region is a particularly dangerous one, for it will be found upon dissection that directly posterior to the third molar on the lingual aspect there is a space which contains little but connective tissue. This space is not described in any textbooks on anatomy, so for the sake of convenience we will call it the retro-ptyergoid space. If an instrument is inserted



Figures 3, 4 and 5 show typical cases of pericoronal infections of lower third molars. Flap overlying tooth contains some fibres from the superior constrictor of the pharynx coming up lingually and fibres from the buccinator muscle externally. The involvement of the fibres of the superior constrictor gives rise to difficulty in swallowing in many patients.

in that space, it will come directly on the outside of the face. (Figures 1 and 2.) Should purulent material be forced into this space, an infection which will rupture externally is very likely to result.

Injections on the lingual surface of third molars should be discouraged, unless they are imperative, not only because of the dangers of causing infections, but also because of a possible injury to the lingual nerve. To quote Fischer:

"The lingual nerve, owing to its superficial situation under the lingual mucosa, may be endangered by contusions during extraction of

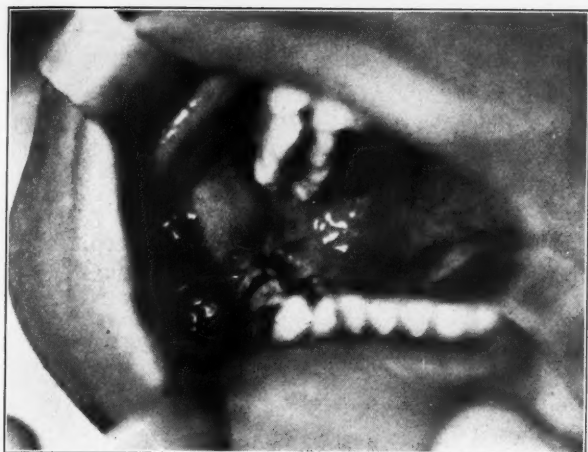


Fig. 4.

lower molars, also by local injections. In lean patients this nerve may be seen through the thin covering of mucous membrane. In one case the lingual nerve trunk together with fibres of the accompanying chorda tympani was severed by incision of a lingual abscess of a lower third molar, resulting in loss of sensation in the tongue on the injured side. As a consequence, the patient, female, lost her sense of orientation regarding the position of the tongue in the mouth resulting in loss of coordination of the otherwise sound lingual muscles. No improvement resulted from treatment with the galvanic current.

"In another case, the patient, aged fifty years, experienced suddenly an intense pain lingually to the third molar, while being injected locally. Numbness on that side of the tongue rapidly ensued. The fol-



Fig. 5.

lowing day serious trismus supervened together with necrosis of the soft tissue extending to the region of the ascending ramus of the mandible. After nine months, the numbness on the left side of the tongue persisted, speech was seriously impeded, and the tongue had a tendency to slip between the posterior teeth, though taste was not impaired.

"From these cases it appears imperative to refrain from injections at the lingual side of lower molars, especially to keep away from the floor of the mouth. The sensory lingual nerve is endangered even in

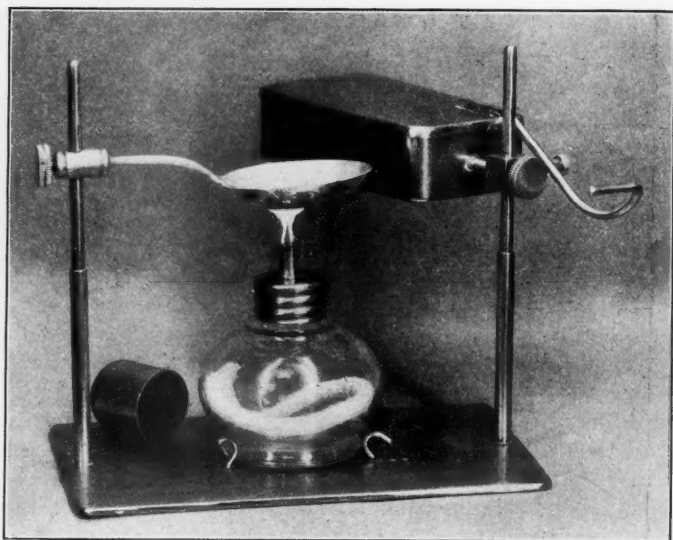


Figure 6. Needle sterilizer. Danger of contamination with anti-rust substances eliminated. Spoon may be used for the rapid preparation of hypodermic medication in case of necessity. This sterilizer may be used with a Bunsen burner or alcohol lamp.

extractions of third molars, as has been shown by Roser and Trauner. In a young lady the removal of both lower third molars was followed by neuralgia of the lingual nerve on both sides, which was attributed to contusions of the nerve within the socket."

If the authorities agree that it is dangerous to inject on the lingual aspect of third molars under normal conditions, then it certainly would be contra-indicated to inject in this area in cases of pericoronaritis where pus is present.

Figures 3, 4 and 5 illustrate cases of pericoronaritis, the type of

cases which would produce untoward symptoms if injected on the lingual surface.

*Second Group. Septic Instrumentation.* This includes needles, syringes and solutions. No operator, however, would wilfully use a septic needle, although he might overlook the fact that he might be infecting the patient with the use of the same needle if improperly used. For example, a quantity of novocain sufficient for a particular case will be prepared. The solution is drawn up into the syringe and



Figure 7 shows the position of the superior constrictor of the pharynx. Note how easy it is to infect this muscle if an injection on lingual surface is made when pus is present. Note also normal position of lingual nerve. In some patients its location is very much higher. Injections on lingual surface of lower third molars should be avoided if possible, for pricking it with a needle may cause its injury.

an injection is made. Should more of the anesthetic be required, he will have no hesitancy in inserting the needle in the crucible and drawing up more of the solution. It is possible, however, that some bac-

teria which in the initial injection may have adhered to the surface of the needle will be drawn into the solution and injected into the tissues. The remedy for this condition is either to use a sterile needle for each injection or to remove the needle and wipe off the point with sterile gauze.

Another failure is the sterilization of the needle in the common instrument sterilizer. As a general rule, some substance is placed in the sterilizer to prevent instruments from rusting. This material may enter the lumen of the needle and contaminate the solution.

Figure 6 illustrates a special needle sterilizer which may be used with a Bunsen burner or alcohol lamp. The spoon is for the purpose of quickly preparing a hypodermic solution in case of necessity.

*Third Group.* Injections into Muscles. It is essential, in making a mandibular injection, that we palpate the inner border of the ramus with our needle before proceeding farther. A simple technic is to have the patient's head in an almost vertical position, with the mouth open to the full extent, then with the index finger of the left hand to palpate a sharp ridge running at right angles to the body of the mandible at the angle, which we know to be the external oblique ridge. Just lingually to that we feel a groove in which we rest the ball of our finger, and the inner border of this groove is the internal oblique ridge. We then proceed to inject, holding the syringe on the opposite side of the mandible and inserting the needle in the mucous membrane at approximately the middle of our finger nail when we should strike the internal oblique ridge. If we fail to strike bone, we should withdraw and try again, for if we proceed we may be injecting into the superior constrictor of the pharynx. (Figure 7.) The infection of this muscle may result in the formation of a retropharyngeal abscess.

*Fourth Group.* Use of too concentrated a solution. The gauge on some of the porcelain crucibles is faulty. Some are marked to contain 10 c.c. when they contain but eight. In such a case a solution stronger than 2% would be used.

*Fifth Group.* Infection due to the carrying of bacteria on the needle from the saliva or tissues, because of improper preparation of the field. It is not uncommon for an operator to paint the tissue with iodine where he thinks he is going to make the insertion and then insert the needle in some other point where there is no iodine. It is important to make sure of the location of the injection and then prepare that particular field.

When an abscess is suspected in a region which has not been directly injured, careful search should be made for the original focus of infection; and it should not be forgotten that the intervening tissues may

show no evidence of disease. It is an established fact that an infection from a wound of the mouth may spread to the areolar tissue of the neck and there cause cellulitis and suppuration without giving signs of inflammation in the tissues of the floor of the mouth through which it passed. As the pus within the abscess accumulates, by progressive liquefaction necrosis of the surrounding layer of lymph, the size of the abscess increases. It spreads most rapidly in the direction of least resistance, in these particular infections toward the skin surface of the neck.

In cases where an infection is suspected and the characteristic symptoms are absent the question of suppuration deeply seated must be kept in mind.

The experienced touch of the surgeon may enable him to proclaim with certainty the presence of pus, when to one not possessed of the tactus eruditus a positive diagnosis would be impossible.

(To be continued.)

140 West 58th Street.

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## The Weight of Bacteria

Knowing the measurements of bacteria, it follows that the volume may be computed; knowing the volume and the weight of the substance of the microbe as compared with an equal volume of water the weight of the organism can be arrived at, according to the Journal of the A. M. A. A cylinder of the size of the typhoid bacillus and 1.2 times as heavy as water would weigh almost exactly 0.000,000,002 milligram. Five hundred millions of them, in other words, would weigh a milligram. A milligram is one-thousandth of a gram, and a gram in turn is approximately one-thirtieth of an ordinary ounce. Fifteen millions of millions of typhoid bacilli, therefore, would be required to balance an ounce weight. Viewed from this standpoint it is not difficult to believe that bacteria are in reality about the smallest of known living things.

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## The Art Side of Denture Construction\*

By Victor H. Sears, D.D.S., Salt Lake City, Utah

The keystone of esthetics is harmony; and in the construction of dentures, harmony is a "will o' the wisp" to many of us. To date there is so much empiricism involved in what we are pleased to call "artistic and natural-appearing dentures" that I do not feel competent to defend some of the opinions expressed in this paper other than to say that at the present time they appear to me as stated.

The purpose of this paper is not to set forth dogmatically certain rules nor to expose the fallacy of some popular notions, but rather to touch upon some of the phases which must be considered during the construction of harmonious dentures as well as to provoke profitable discussion of the factors suggested. Rules for producing pleasing effects could be formulated, and some of them might be mechanically followed with good results, but truly artistic effects are usually obtainable only through the earnest efforts of finished artists.

Let us briefly go through the process of making a full upper and lower set of dentures in vulcanite, with occasional remarks on the subject of esthetics. Stock teeth will be used practically as they come from the manufacturer although there may be occasional patients for whom we wish to grind teeth to shape, or even to make the entire set. We shall consider effects and how to produce them by means of the ordinary laboratory equipment.

The most important part of a denture from the standpoint of esthetics is the porcelain, so we shall consider first the selection of teeth. The upper six anterior teeth, being most conspicuous, will be considered of prime importance.

### SIZE

Much depends upon the size of the teeth, individually and collectively. Since 1914 we have been glad to adopt the discovery of the relation of the length, width, and outline form of the upper central incisor to the length, width, and outline form of the face. This has, perhaps, been the greatest single stride thus far made toward intelligent tooth selection, and it is the logical starting point from which we shall introduce certain variations.

The ratio of "sixteen to one" will be taken as a starting point; that is, the upper central incisor should be  $1/16$  as wide as the greatest width of the face.

There are at least two factors which dictate deviation from the accepted ratio: size of the mouth, and severity of features. An excep-

\* Read before the National Society of Denture Prosthetists at Milwaukee, 1922.

tionally large mouth may require slightly larger incisors than 1/16 of the facial width. Likewise, a heavy-set masculine face may require slightly larger teeth in order to give a harmonious impression.

With the upper central incisor as our standard, we shall consider the comparative widths of the other teeth, leaving the question of length and outline form for attention under the next heading.

Dr. J. Leon Williams has called attention to the fact that laterals of smaller than average comparative width are to be found in typically feminine faces and, therefore, suggests to the observer feminine gender. By the same token the effect of a comparatively wide lateral is to suggest masculine gender. The chief characteristic which marks a face as being masculine is strength. Therefore, when we speak of suggesting masculine gender we mean primarily that we seek to express strength.

### FORM

Form comprehends both outline and contour of the visible surfaces of the teeth as related to the outline and contour of the face. The forms of the teeth should reflect the form of the face in which they are found, and to do so the characteristic curves of the face must be found in the individual teeth. Delicately formed teeth in a coarse face would produce marked disharmony, just as severely angular teeth in a delicately rounded face would appear grotesque.

Adhering, as we do, to the practice of selecting teeth to correspond to the facial outline, we shall consider two slight modifications. (1) If the high lip line is very high, longer teeth may be used to avoid the display of rubber, and (2) the shape of the mouth may be a modifying factor.

In cases where the corners of the mouth turn decidedly upward and the center is low, the lips making a somewhat V-shape, the teeth will be more pleasing if made more tapering than would be indicated by the facial outline unless the face be strongly tapering. On the contrary, if the lips form a nearly horizontal line, the teeth will be modified toward the square type.

### HUE

Hue includes purity, intensity, and translucency as well as the position on the color scale, both of the individual teeth and the composite effect of the whole denture. Judging from the favorite hues of some operators and from the fact that nearly all hues of the Guide find advocates somewhere, it is extremely fortunate for our patients that one cannot exercise the same freedom of choice for teeth as one can for wall paper. Even among men who are restricting their practices to denture construction we find one man condemning as unusable the favorite hue of another. In the light of such unanimous disagreement

it must be conceded that it makes little difference what hue is used, or else that this is a field which needs more intensive cultivation.

For the purpose of laying myself open to attack, let me tell you that my selection for the predominating hue for full dentures is limited to practically five numbers, which are: Twentieth Century Nos. 7, 16, 20, 21, and 9. Furthermore, it is a fact that I have no scruples against introducing a hue number in one or more teeth which is not exactly the same as the predominating hue, although any such arbitrary combination as Nos. 15, 16, 17 is not to be tolerated. For instance, No. 8, 9, or 11 might appear with No. 7 predominating. You will notice that in all hues mentioned yellow or orange is the foundation, with the exception of No. 9 which has a faint suggestion of pink.

Frequently it is desirable to make a greater difference in shade than is obtainable from our present tooth stock and still not introduce teeth of another hue number. Staining has been suggested but thus far I have been unable to use a surface stain which does not in time wear off. Because of inability along this line, I have resorted to two other expedients with gratifying results: firing and grinding.

The method of firing is to place the tooth or teeth of a set in the oven and bring the oven to a white heat. Experience will dictate the required amount of time necessary for any degree of alteration. The chief drawback of this procedure is that change is possible in only one direction—the direction of diminished intensity of color.

Of greater value than firing is grinding, and this may be done in a number of ways. You are all familiar with the method of roughening the surface of a tooth by grinding in order to increase the depth of shade through decreasing the reflection of light, and you have seen erosion imitated with a stone, but have you made use of a stone for the purpose of varying the translucency of the porcelain?

Closely related to hue in considering the effect upon the eye is translucency. Many pleasing natural teeth have areas of comparatively greater translucency which appear as dark spots with the light full in the patient's face and as light spots with the light from one side. When long-bite teeth are used (and for beauty's sake they *should* be used), we can more or less skillfully imitate these translucent areas by grinding the porcelain thinner on the lingual aspect of the tooth. Very satisfactory results may be effected by cutting small trenches into the lingual porcelain where the translucent areas are desired and then making the trenches smooth with porcelain polish. We might call this trench-digging for translucency.

Of course the thinning of the lingual portion of the tooth to increase translucency may be applied to the entire bite portion and is especially recommended for upper lateral incisors.

## ARRANGEMENT

Arrangement includes the position of the dentures in the mouth as well as the relation of the individual teeth to each other. No longer do our prosthetists set teeth in even rows like buttons on a card. In fact, the reaction has been so strong that a glance at the dentures is sometimes more likely to give one the impression of peering into a button box. A few of us have even presented to the eyes of the orthodontist malpositions which would involve new principles in the construction of regulating appliances. Advanced stages of pyorrhea have been successfully imitated by others.

When mechanical and phonetic principles permit, and in the absence of natural teeth to guide us and until someone suggests a better plan, let us begin by setting the upper central incisors in the center of the face and vertical from a front view with the incisal edges on a plane even with the lip line, parallel with the long axis of the face from a side view and parallel with the natural contour of the ridge from a bottom view. With this simple rule in mind variations may be introduced to suit the individual case.

As for the lateral incisor, its chief offense continues to be a tendency toward gingival prominence. The gingival of the lateral should be as retiring as the gingival of the cuspid should be bold, making the centrals and cuspids the most conspicuous teeth, especially in the feminine type.

In striving for pleasing effects, observation seems to warrant the suspicion that there is a rather definite relation of the form of the teeth to their arrangement. For instance, square teeth do not appear to advantage if set to an ovoid ridge, and tapering teeth seem to be trying to run off on a tangent if set square across in front. The discovery of the relations of form to arrangement and the formulating of a plan for applying these relations in practice will do much toward making porcelain teeth appear to be growing in an alveolar ridge.

The upper six anterior teeth should be set with the entire lip line in mind. In general, the incisal edges will form an upward curve if the corners of the mouth turn decidedly upward. More could be said about the relation of the shape of the mouth to the arrangement of the teeth but it should be said by someone who knows.

We now pass to a consideration of the remaining teeth, beginning with the upper posterior ones. In pleasing natural dentures we find the crown portion of the bicuspid shorter than the crown portions of the anterior teeth, according to their prominence; that is to say, that naturally the bicuspid is partly hidden behind the cuspid and correspondingly shorter. With this in mind we should build our dentures as Nature builds them except that it is better to show porcelain than rubber, and this is our excuse for placing longer bicuspid in cases

where the corners of the mouth turn sharply upward in expressions of joy exposing all of our natural-looking teeth and some of our very unnatural-looking rubber gum.

Now dropping down to the lower jaw, the lower anterior teeth must be of the same hue and may be of the same depth of shade as the upper anterior teeth in cases of extreme overjet, but as the depth of overjet decreases the depth of shade should be increased in the lower teeth in order to heighten the perspective. Greater depth of shade will make the lower teeth appear farther back in the mouth than they actually are.

There is a serious problem in esthetics to consider in placing the lower anterior teeth with reference to the uppers. When does a face require that either the upper or lower lip should be more prominent than the other? Or should they be of the same fullness? Perhaps the ideal relation of the lips is not the same for all types of faces.

The lower cuspids may express strength and therefore gender if the gingival portion is made prominent and the incisal edge inclined toward the lingual. The lower posterior teeth should lean toward the lingual in harmony with the cuspids.

Now considering the size, form, and arrangement together, it seems quite natural to express strength or weakness with these factors.

Recall the impression upon the mind in looking at a classical Greek temple. Beauty and strength are the first thoughts expressed; beauty because of the harmonious arrangement of the elements of architectural composition, and strength because of the uniform size, form, and arrangement of parts—particularly of the columns. Were we to introduce one column either larger or smaller than the others, the effect of strength would be impaired. If we were to set one column out of line or make it different in form, the weakening effect would be the same.

The Romans, too, builded well, strength being the predominating element of ancient Roman architecture. Particularly in the old Roman aqueducts do we sense inherent strength due to the regularity of size, form, and arrangement of the supports.

Modern structures, particularly our best bridges, illustrate the utilization of uniformity as a means of giving strength.

Uniformity of the size, form, and arrangement of the spokes of a wheel imparts a suggestion of strength. The same observation holds true with regard to other structures, including teeth. The teeth may be so unified as to impart the suggestion of strength or so diversified as to express weakness.

Thus we see that the suggestion of Dr. Williams regarding gender as expressed in upper laterals is perfectly logical, and may be extended to all visible teeth, not only as related to comparative size but also as related to form and arrangement.

Leaving size, form, hue, and arrangement of teeth behind, let us wax up the case. Of course, we shall build up the buccal and labial sides of the wax trial dentures to restore the facial expression to its former youth and beauty, perhaps adding even more than Nature intended; but whatever liberties we take in this respect let us adhere to Nature's way of determining the gingival curve. What is Nature's way?

During the Great War it was for some time my part of the work on the examining board of Camp Beauregard to examine the teeth of all new men entering the camp. Although not a perilous task, it had some of the elements which go toward making a task interesting. During this time I exceeded my authority to the extent of examining gums as well as teeth, especially the gingival curve in young, healthy mouths. A conclusion based upon the study of some drawings made at this time is that Nature arches the gingival line in direct proportion to the prominence of the gingival portion of the tooth. This holds true regardless of whether the teeth are regular or irregular. Thus a typical lap lateral causes the gingival line to arch up sharply at the mesial. The rule holds good not only for individual teeth but also for teeth as related to each other. Thus when the gingival portion of a lateral is depressed as related to the central and cuspid, Nature places the gingival line farther over the crown portion of the tooth. Conversely, when the gingival portion is prominent, as we frequently see it in lower cuspids, the crown portion is not so much covered with gum tissue. If we were formulating rules, we might call this the gingival rule.

Having observed the foregoing suggestions and, perhaps, followed some of them, our case is ready to pack, and we are confronted with the kind of rubber to use, or rather the *kinds* of rubber, and where to pack each kind. It is customary to pack a band of pink from first molar on one side to first molar on the other all the way from the porcelain to the denture border, but no pink on the lingual aspect except by accident.

As for the pink veneering itself there is much to be desired. Mottled pink is less conspicuous than any of the plain rubbers, and we can more closely imitate Nature by packing rubber of lighter shade just above the crown portions of the teeth to correspond with the normal gum tissue, which is slightly lighter over the tooth roots than it is in the proximal areas.

Now the case is vulcanized and reground. The grinding with carborundum does much toward increasing the natural appearance of the case and we can improve matters still more by introducing some irregularities of the incisal edges with a small stone.

Generally the lower incisors may be made to appear much more natural on the abraded incisal edges if the exposed dentine may be

seen. This effect is produced by sinking a small stone into the porcelain where the dentine is supposed to be, leaving the dentine rough and polishing the enamel to a high glaze.

Next we may etch the visible surfaces of the teeth with hydrofluoric acid to remove the glaze except in the incisal edges. Usually the etching should be very slight on the upper teeth and somewhat deeper on the lowers. The teeth are now smoothed with porcelain polish. This will make the high areas smooth and allow the lips to glide over them easily but the proximal areas will remain comparatively rough. In some instances this adds materially to the pleasing appearance of the case.

With the patient in the chair, the completed dentures should be inserted and the patient engaged in conversation. The operator may sit on the window sill and make some remark about the difference between modern dentures and the old time plates. This usually brings a response in the form of information about the plates worn by the patient's grandmother and the operator can make a final study of the dentures in conversation. When the appearance in speaking has been passed upon, if the patient has not smiled during the relating of grandmother's experiences and your best funny story fails to disturb the sobriety, the desired effect may be obtained by commanding the patient to "smile very sweetly."

In conclusion, let us bear in mind the fact that the patient (particularly if it be a lady) is deeply concerned about the appearance of the restoration. The first mental suggestion will be a lasting one on the patient's mind and should be deliberately made. Whenever the operator's conscience will permit him to do so, he should announce to the patient that the effect is pleasing. This is an important step and is the last thing an operator may do to improve the appearance of his dentures.

516 Clift Building.





## Degenerative Changes in the Face Following Loss of Teeth. Restitution With Artificial Dentures\*

George Wood Clapp, D.D.S., New York, N. Y.

Degenerative changes in the human jaws begin when the first permanent tooth is lost. They progress with the loss of other teeth and may soon become visible in the face. When all the teeth are lost, the effects on the appearance are marked and unfortunate. Unless proper corrective steps are taken, the person not only looks older but actually ages more rapidly than he would otherwise.

If patients generally understood that a high degree of dental skill is required to arrest these degenerative changes and to arrest premature ageing of the tissues and that proper correction may require a series of dentures, just as the pediatricist treats feet with a succession of shoes, they would often be more willing to co-operate with the dentist in efforts toward restitution and to support the considerable expenditure of money which the application of the necessary time and skill by the dentist makes unavoidable.

Dentists who present denture service only from the viewpoints of pleasing denture appearance and efficiency are leaving unsaid many things that nearly all patients of mature age desire to know. None of us wants to get old in tissue condition or appearance more rapidly than is necessary. In fact, as we age, we generally desire to take any steps which will stay the hand of Father Time or dull the edge of his scythe.

Patients generally do not understand the character of these degenerative changes or that they can be "nipped in the bud," so to speak, by the use of properly-made artificial dentures, and that many of the most serious changes will then be indefinitely postponed. They do not know in what ways good denture work differs from poor denture work, but most of them would be glad to learn.

The pictures on the following pages offer suggestions for the information of patients concerning the extent and character of the degenerative changes in appearance which follow the loss of all the teeth, and the restitution possible with properly constructed dentures. In some cases, better results than this can be obtained.

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\* This is the first of a short series of articles on this subject. The next article is expected to appear next month. Dentists who wish a reprint of this article for use at the chair should send a 2 cent stamp to this magazine.

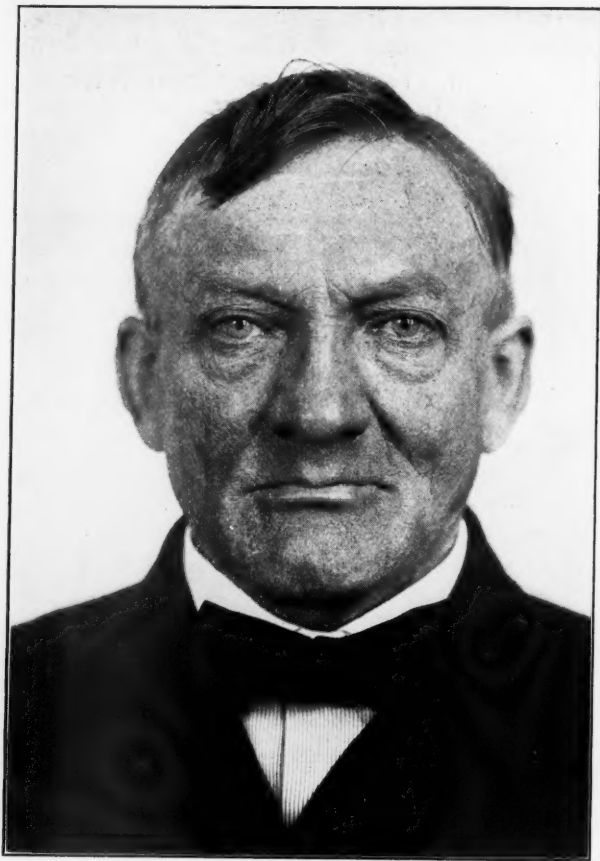


FIG. 1

**All the Natural Teeth Lost; No Artificial Teeth**

No picture of this patient with the natural teeth in position is available. It is evident that the upper lip has fallen inward and downward from the position it formerly occupied. It no longer expresses vim and vigor but is characteristic of old age. The portion of the lip beside the wings of the nose has fallen inward, because of the absorption of the underlying bone. This makes the ridges from the wings of the nose to the corners of the mouth appear heavier than formerly. At the outer ends of these ridges holes are beginning to form in the cheeks. All these are degenerative changes and are characteristic of greater age than this man has reached.



FIG. 2

#### Natural Teeth Replaced By Properly Made Dentures

This man appears years younger than in the picture on the opposite page. The degenerative changes in appearance have been partly corrected by properly designed and constructed dentures. Not only is the appearance improved, but the tissues will age less rapidly than would occur if the dentures were not made or were improperly made. The depressions beside the nose are no longer so deep and the ridges are not so prominent. The hole in the right cheek no longer shows. That in the left cheek was too deep to be entirely removed at this time. The appearance of the mouth is that of middle life rather than of old age.



FIG. 3

**All the Natural Teeth Lost; No Others in Place**

The degenerative changes are more apparent here than in the full front view. Most anyone without teeth looks as bad as this from the side. The upper lip has fallen in. The lower lip is forced unnaturally forward. The profile of the lower third of the face is changed for the worse.

The realization that one shows such changes has an effect on one's mental state which was shown in this case. Nothing was said to the patient about position when this picture was taken. He knew he looked old. That made him feel old. He pulled his chin down into his collar like an old man whose life-work is done. He looks like "our last picture of father."



FIG. 4

#### Natural Teeth Replaced With Well Made Dentures

The upper lip is here supported by the upper plate. At some later date it may be carried forward a little farther. The lower lip has resumed its normal position and the profile of the lower part of the face is about what it probably was years ago.

The mental effect of this change in appearance was interesting. No directions about position were given. The man knew he looked younger and more vigorous. He sat straighter and held his head up and his chin out like a man who still proposes to do things worth while. Any person in whom such a change of appearance is effected will unconsciously reflect it in mental attitude and achievement.



FIG. 5

### How Artificial Teeth Look When Shown

\* Dentures can be made with teeth of almost any shape for any person who will never open the mouth in public.

If the teeth are harmonious in form with the face as it was before the natural teeth were lost, or will be when the dentures are properly made, the person may open the mouth at will with the assurance that the effect will be pleasing. If the teeth are noticeably unlike the face form, the effect will not be so pleasing.

Three distinct forms of face have been recognized for more than a century, and teeth harmonious with each form are obtainable.

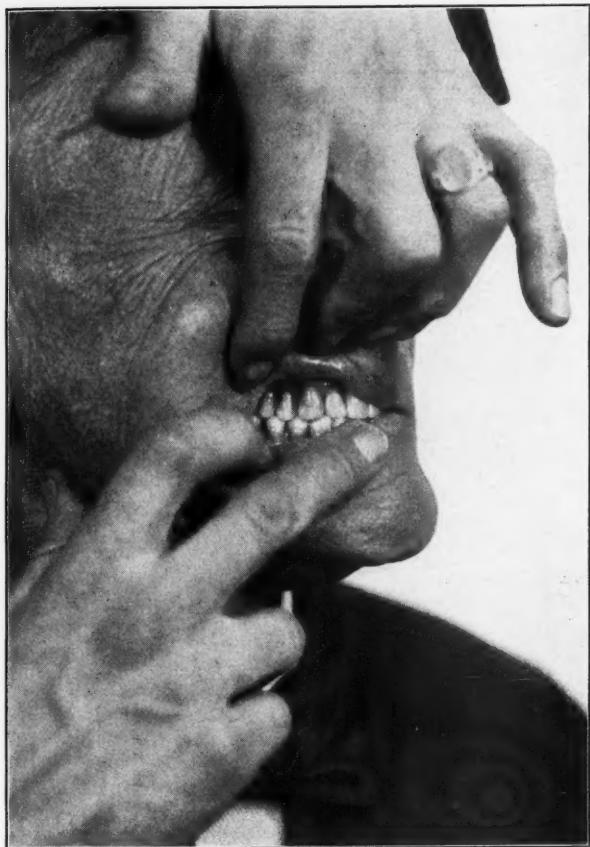


FIG. 6

#### Comfort and Efficiency In Artificial Dentures

Dentures may restore expression and be pleasing in appearance and yet be comfortable and efficient. The comfort and efficiency require skill in taking the impression and bite and the use of correctly formed teeth. The arrangement of these teeth requires great knowledge and skill on the part of the dentist and necessitates the expenditure of much time.

Patients who permit dentists to devote to their individual needs as much time as the conditions require usually get results which are more satisfactory in every way than if the dentist is compelled to economize time.





FIG. 7

### Happy With Dentures

This man did not have to force this smile. He knew that he appeared vigorous and efficient. Old age and decrepitude had been given a distinct jolt backward.

He didn't have to conceal his teeth. They were of the proper form and size and well arranged. Many persons will not know he has artificial teeth. He now meets his customers on a plane of confidence.

He is enjoying life. After the newness and discomfort inseparable from the first use of artificial teeth wore off, he ate in comfort. Soon his old-time pleasure in a good meal returned and eating became an enjoyable function. He says he feels just as he looks here.

## Correlation of Dentistry and the Practice of Medicine

By Manfred Call, M.D., Richmond, Va.

Dean and Professor of Clinical Medicine, Medical College of Virginia.

*(Continued from October)*

If it is essential that a physician should have some knowledge of the mouth changes that accompany Addison's disease, primary anemias, arsenic and lead poisoning, the mucous membrane changes of pellagra, purpura, scurvy, the exanthemata, syphilis, parasitic infections and various dermatoses, is it not also necessary that the dentist have an understanding knowledge of these general conditions that give such mouth manifestations?

It can be demonstrated that, even in the absence of infection, mouth conditions can produce systemic states to the point of incapacity. If the early recognition of these clinical possibilities gives the opportunity for a more reasonable prophylaxis, and a less extensive pathology in consequence, should not both professions be on the alert for the early manifestations of such states? Let us illustrate this point by rickets, a deficiency disease in which faulty bone formation may occur with a resulting faulty shape of weight-bearing areas and an insufficient support of structures designed to bear appreciable stresses from the application of varying muscular forces. I venture to say that the physician would be more impressed with the resulting visible bony changes in the extremities and thorax than he would be in the possible bony changes in the head and face with their resulting effect on dentition and mastication.

Cryer in various reviews has presented a study of the developmental changes in the bones of the face and the embryonic relationship of the mucous lining of the mouth, nasal cavities and all the internal surfaces of the face, the teeth and the alveolar process. He points out that at the age of five or six years, forty-eight teeth are in various stages of transition: that with normal development the jaws are in typical relationship the one with the other, and the teeth erupt with typical alignment and occlusion and with typical arches.

With pathologic conditions subsequent to the eruption of the deciduous teeth, structural alterations and misplacement of the permanent teeth may occur with modification in the shape of the jaw, face, maxillary sinuses, and even in the nose and its accessory sinuses. Viewed in this light, rickets has a new significance and abnormal mouth mechanics loom as a potential etiologic factor in diseases of the gastrointestinal and respiratory tracts.

Disharmony of structure must be associated with disharmony of

function. As the salivary and mucous glands arise from the same embryonic tissue as the teeth and the alveolar process, perverted development of the one should leave some impress on the development and functional ability of the other. If then insalivation and mastication are important steps in the digestive cycle, any perversion of form or function may initiate a change in the whole digestive cycle.

Green recognizes this when he states that "Loss of the means of mastication may lead ultimately to partial or complete loss of function of the glands which furnish certain important digestive hormones." (Medical Diagnosis.)

Lorand, in *Old Age Deferred*, speaks of its onset, even before thirty years of age as being "accompanied by loss of the teeth, the gums also are retracted from the teeth, which consequently appear greatly lengthened: later on the teeth become loosened and fall out. This then causes the jaw bone to atrophy, the face becomes sunken and the individual appears many years old. There is a tendency to constipation, nutrition is below normal," etc.

For the maintenance of any function, constant exercise of such a function is essential, and the state of the general vitality of the patient conditions the functional activity of each organ. Glands must receive their normal stimuli: the digestive glands have their chemical hormones, secretory impulses along the nerve paths as well as the physical presence of the food. Inhibition of function, even in the normal organ, may be variously induced.

The function of motility is often of greater importance than the function of secretion. Diminished motility may result in stasis; increased motility in hyperperistalsis and even spastic obstruction. With the former, abnormal fermentation or putrefactive changes may be induced, while in the latter, diarrhoea may result; in the former toxemia and malnutrition, while in the latter is the tendency to diarrhoea and asthenia. The character of the food ingested is determined to a large extent by mouth mechanics: the number of teeth, their occlusion, the sensitiveness of the gums and the periodontal tissues.

Cannon, in his "Mechanical Factors of Digestion," gives a summary of what occurs in normal mastication; postulating a normally developed bone and muscular apparatus his reference to the secondary events induced by the initiatory act are of great interest, for from it we can readily deduce that just in proportion as mastication is interfered with, whether by structural alteration or defects, or by painful phenomena associated with the act of mastication or deglutition, the whole cycle of digestion and assimilation may be unfavorably influenced.

"The freedom of movement of the lower jaw permits a wide variety of relations between the upper and lower row of teeth: they can be brought together, separated or pressed with a sliding motion one row

upon the other, either forward and backward or from side to side. The up and down motion is essential to the use of the biting front teeth: the side to side motion is more useful in the later process of chewing: the tongue and cheeks act like the hopper of a mill, and force the food between the grinding facets until it is broken up or torn into fragments of proper size for swallowing.

"The duration of mastication varies with appetite, age, the demands of business, the quantity of food in the mouth, and especially with the nature of the food, whether fluid or gummy, moist or dry, crisp or tough. The amount of mastication given any food is related to the readiness with which a mass is comminuted, insalivated and gathered into a bolus, and is not related to the degree of salivary digestion.

"The effect of the mechanical treatment in the mouth is the production of a semi-fluid mush in which there are likely to be particles of varying size, less than 2 m.m. in diameter. Such comminution must result in an enormous increase in the surface exposed to the action of the digestive enzymes and thereby promote the rapidity of their action. The secretion of saliva, which softens the hard particles in the food and with its ptyalin starts the digestion of starches, is also promoted by the movements of mastication. The pressure exerted in the process of mastication may be surprisingly great. The pressure which the molars are capable of exerting, for example, as determined by a spring dynamometer may be as high as 270 lbs. With a direct thrust the crushing point of cooked meats has been found to vary between fifteen and eighty lbs., of candies between thirty and 110 lbs. and of various kinds of nuts between fifty-five and 170 pounds.

"The voluntary act of chewing has been found to have much significance for the proper initiation of gastric digestion. During mastication substances of pleasant taste are brought in contact with the gustatory organs of the tongue and cheeks and odors released from the separated food rise to the olfactory region of the nose and, through the pleasurable sensations aroused by this stimulation, the gastric juice is reflexly started flowing in preparation for gastric digestion. As has been proved by experiments of Pawlow and Elkins, this initial 'psychic juice' may be a prime condition for the co-ordination of gastric and intestinal digestive processes.

"Still another remote effect which may result from the chewing of agreeable food is the development in the stomach of a condition of tonic contraction, a state of sustained shortening of the circular muscles, which nicely adapts the capacity of the organ to the contents, whatever the amount swallowed. The peristalsis of the stomach, which churns the food with the gastric juice and pushes the chyme onward into the duodenum, is dependent on the tension developed in the muscular wall as a result of its tonic state. Although these secretory and motor activi-

ties of the stomach are not, as we are aware, directly subject to voluntary control, they are capable of being profoundly influenced, favorably or unfavorably, by the character of the experiences, agreeable or disagreeable, that attend the process of mastication."

Is any further evidence needed to indicate the role that mouth mechanics play in the digestive act? Deduction readily indicates the functional changes that may occur and it is a well known fact that functional disorders, perpetuated, finally resolve into true pathologic states. A similar relationship applies to the respiratory tract.

Mouth conditions, aside from oral sepsis, that induce respiratory affections, are operative chiefly in that they produce changes that mechanically impair proper ventilation of the upper air passages, induce mucous membrane changes, lower tissue resistance, conduce to infection, and result in marked irritation of the respiratory bronchial tract with subsequent pathology.

The normal protective mechanism of the lungs is so efficacious that, according to F. Muller, the contents of the alveoli and of the bronchi, even as far as the trachea, are sterile, under physiologic conditions.

That part of the protective mechanism we will consider lies in the area and arrangement of the mucous membrane of the nose. Here we find an enormous area of mucous surface in a relatively small space, due largely to the shape and formation of the turbinate bones, producing approximately one and one-half pints of secretion daily. In normal nasal breathing the air is warmed, filtered and saturated with moisture in its passage through the nose before it enters the lungs: foreign bodies of small size, dust, soot and bacteria are entangled in the surface mucus: the current of air passing backward is deflected at an angle by the pharyngeal wall with further opportunity for the deposition of foreign particles, and it then enters the lower respiratory tract where the second part of the defensive mechanism becomes operative. Conditions, then, that lead to mouth breathing negate the first part of the protective mechanism of the lungs and thus may induce disease.

In this connection, Cryer states that abnormal deposits of lime salts may prevent the teeth from erupting into their normal positions, fixing the cancellated tissue of the alveolar arch, forcing the tongue back into the pharynx, carrying the soft palate upward and plugging the posterior nares, producing mouth breathing and blocking nasal drainage.

I have been impressed with the number of cases, even in early adult life, that present anatomic nasal changes, not the result of traumatism, and not, necessarily, the result of infection, even though accompanied by infection. I refer to distorted nasal septi, with resulting mucous membrane changes and the conditions that produce mouth breathing.

Dewey states that "the distance between the floor of the nose and the roof of the nose is dependent upon the development of the lateral

wall of the nose, the principal part of which is the superior maxillary bone. If any condition arises that interferes with the growth of the superior maxillae, it necessarily will cause a shortening between the floor of the nose and the roof of the nose and the nasal septum, continuing to grow downward, as it meets with resistance from the floor of the nose, will become deflected."

This statement tends to answer the question as to whether the nasal condition is a primary one, or secondary to abnormal mouth development in a certain number of cases, and also to answer the question "Should these patients have been referred in early life to a rhinologist, a pediadontist or an orthodontist?"

The rhinologist would probably have advised a period of watchful waiting, certainly until fifteen years of age, and then, if necessary have adopted an operative rather than a prophylactic procedure. In this connection I can heartily endorse the opinion expressed by Dr. Liles before this Association at its last meeting, "That it is a duty to be alert to diagnose and treat causes rather than symptoms and that preventive dentistry must start with the child even before the teeth are erupted."

I believe dental consultation should be a routine procedure in early life, even in children supposedly normal.

The relationship of mouth conditions to manifestations on the part of the nervous system is not so apparent, but, when we consider the innervation of the teeth and associated parts by the sensory branches of the fifth cranial nerve and note the relationship of the nuclei of the fifth nerve with those of the sixth to the twelfth cranial inclusive, as well as the ganglionic communications of the fifth nerve, we find an explanation for many of the reflex phenomena originating along some of these branches.

Conditions producing irritation along one small portion of its many branches and sub-divisions give varying manifestations in the central nervous system or the organs of special sense—optic, olfactory, auditory—as well as in the gastro-intestinal and respiratory tracts. Among the causes producing such manifestations may be listed, mechanical compression of the nutrient foramina, however induced, impinging on nerve or vessels, shocks from blows upon the mandible or from an abnormal degree of concussion in mastication, chemical irritants, metabolic or bacterial toxins, unerupted or impacted teeth.

The resulting symptoms will vary with the intensity of the exciting cause and the duration of its action and will include vaso-motor, secretory and trophic, as well as painful phenomena, from the mild neuralgias to the severe neuritides.

While the areas of pain reference to the head and face have been worked out for the various teeth such as fronto-nasal, maxillary, mandib-



ular, temporal, mental, naso-labial, and superior laryngeal, the same areas may be involved in diseases of the eye, the nose and its accessory sinuses, and certain thoracic and abdominal viscera supplied by the vagus,—especially the lungs and the stomach. A discriminating judgment and a most careful analysis of the evidence would be called for in establishing the true etiology of such manifestations.

An illustration of a trophic manifestation from dental irritation is of interest. Le Clercq, in discussing Chronic Gingival Irritation in the etiology of Alopecia Areata, shows that in 105 of his cases it was the sole determining factor; in twenty-five per cent. it was the preponderating factor; and in sixty-five per cent. it was a more or less important factor. The alopecia was limited to the side of the dental lesion, it was characterized by a limited number of areas, generally but one, with two areas as a maximum where only one tooth was involved; it was peculiarly benign and yielded readily upon cessation of the irritation.

The evidence I have presented to stress the analogy in the fundamental training of the medical and dental student: and the points of contact chosen to illustrate the correlation of medical and dental practice could be indefinitely extended.

My own attitude is one of profound respect for the achievements of dentistry and a realization of the fact that dental diagnosis requires for its fullest development, and has produced, men as well trained for the purpose as can be found in any medical or surgical specialty. That in its therapeutic procedures, prophylactic or curative, it calls for the mechanical skill of the artisan and the imagination and perspective of the artist for accomplishment of results necessary, not only for the comfort and appearance of the patient, but for the preservation of most important body functions. And, that until such qualified dental representatives are added to the staffs of all general hospitals, or included in any group of men who offer a complete diagnostic clinic, a most essential factor is lacking in what otherwise might be a complete organization. The practical operation of such dental contact can probably be best worked out by hospital and out-patient organizations. The establishment of such a dental department and the appointment of a chief of such service, with full responsibility for the development of the department, has at once a tremendous educational value on the entire hospital staff.

In a teaching hospital, the qualifications for such a chief should closely parallel those required of the head of a surgical division, including aptitude as a teacher, interest in pedagogic affairs and research, large clinical experience, and general proficiency as a practical dentist. Such a chief should have the authority to nominate to the governing



heard all associates and subordinates and should be held personally responsible for the character of their work.

In our own hospital, a private institution, a routine inspection of the mouths of all hospital cases is made by Dr. Guy Harrison, head of the Department of Oral Surgery. He indicates on a special form to be attached to each chart whether or not a complete mouth examination is indicated. The signature of the attending physician on this attached report authorizes or declines such complete examination. This procedure was adopted because many of our cases are from the city in which the institution is located, have their own dental affiliations, and might prefer to have such examination completed by men of their own choice, and at some future time.

In a general hospital, certainly on its charity wards, such a degree of ethical consideration would not as a rule be necessary for obvious reasons.

When the volume of the hospital clinic justifies the service, appointment of dental internes must be considered.

I might say, that, so far as the teaching hospitals of the City of Richmond are concerned, the Memorial and St. Philip's, we are now making a critical survey of each hospital teaching department, its organization, its teaching methods, and its functional efficiency as it pertains to the department as such and also as an integral part of the Medical College. As chairman of its Medical Staff, I feel that a sympathetic and understanding co-operation of this staff with the representatives of the dental faculty will, in the near future, result in a most satisfactory and constructive development along this line, and include in addition an opportunity for the training of the entire nursing corps in essential mouth prophylaxis.

The value of our own staff meetings has been materially enhanced by the presence of our dental confreres. Their discussion of our work, and our discussion of theirs, the exhibition and reviews of cases, has resulted in a better balanced viewpoint than would otherwise be possible, and has been of enormous informative value.

Until all patients, charity or pay, can have the benefit of such talent, and the staffs of all general hospitals are strengthened by the addition of such men, we as a profession have failed in an obligation to the patient, the institution and ourselves.

*Stuart Circle Hospital.*



## Illustrated Steps in Crown and Bridge Construction\*

By Anastasis G. Augustin, D.M.D., New York City

### INLAY PREPARATIONS FOR FILLINGS IN CAVITY RESTORATION AND FOR ABUTMENT IN BRIDGES

Proper application of the cast gold inlay gives strength, artistic and natural appearance, adaptation and pulp preservation. The compound inlay in the posteriors and the pin inlay in the anteriors are the best.

In the application of inlays for bridgework, one to four missing anteriors may be constructed, while in the posterior part of the mouth two or three missing teeth may be replaced, but the teeth used as abutments must be strong.

The construction of the pin inlay for the anteriors may be done as follows: With a carborundum stone the palatal enamel contour is ground off sufficiently to permit enough thickness for the metal cast. Next, the cutting edge is ground off slightly and bevelled toward the labial, but care must be exercised not to display any metal in the front of the tooth.

With a (half-size) round bur, drill a pin hole at the medial line near the cingulum, using the long axis of the tooth as a guide, about one-eighth of an inch deep; into this fit a 24-gauge wire as a guide for the other two pins, and drill the other pin holes parallel to this. Into these fit a 24-gauge platinized-gold round wire, and have the edges extending outside the cavities slightly and roughened to assist the wax to cling to it. Now have the cavity slightly moist, and into it press the softened inlay wax, working it with a hot plastic instrument; trim and carve the same; attach a metal spru; chill the pattern with cold water; remove and invest. When ready for casting, cast it in platinized gold or clasp metal to insure rigidity of abutment.

In the posteriors the compound inlay preparations are advisable. They should have a well defined dovetail preparation. The addition of pins at the extremities of the dovetails insures strength to the cast.

Figure 1. Cavity preparation for pin inlay in anteriors.

Figure 2. The same cast in platinized gold.

Figure 3. Cavity preparation in a molar tooth.

Figure 4. A gingival cavity preparation.

Figure 5. Cavity preparation for inlay of incisor tip and side involved.

Figures 6, 7, 8. Inlays cemented on teeth.

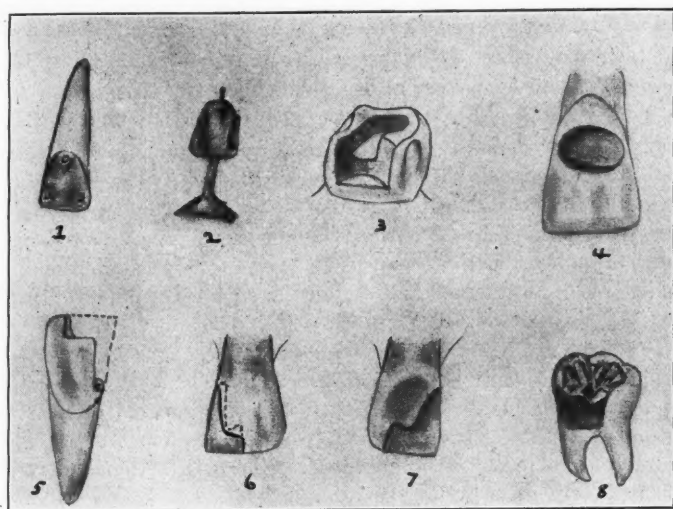
The preparations in inlays should give character to the outlines of

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\*Copyright 1923 by A. G. Augustin, D.M.D.

the cavity. The cavity walls should converge toward the floor of the cavity. Avoid bevelled margins or undercuts.

In the anteriors, the labial margin should extend in a straight unbroken line from the incisal edge to the gingival margin, with square-cut walls and with no undercuts. The cavity should be extended about one-half more at the palatal side than at the labial. When a hypersensitive section is reached during a preparation, extend the preparation across the palatal at the cutting edge, away from deep center or gingival parts.



When the incisal edge is weak, as in the laterals, a groove must be prepared at the gingival third. If there are strong supporting walls a well defined step should be formed to meet the masticating force.

In incisal edge restorations, when cavities are squarely prepared across at the center with parallel walls, pins may be employed to insure better retention.

For cavity restoration, inlays should be cast with 22 to 24-karat gold; the softer the gold the easier to burnish the margins.



## Technic of Dr. Guido Fischer

By John Jacob Posner, D.D.S., New York

(In a talk upon this subject before the Oral Surgery Section of the First District Dental Society, New York, April 18, 1923, Dr. Posner referred to the changes in technic of Dr. Guido Fischer of Hamburg, Germany. Dr. Posner recently returned from a several months' visit to Dr. Fischer's clinic. This short summary is neither official nor complete but represents the impressions made by the paper upon one in the audience.)

The first improvement made by Professor Fischer in his technic of local anesthesia was in regard to the instrumentarium. The Schimmel needle,  $1\frac{5}{8}$  inches long, 25-gauge, was originally recommended for the mandibular injection. This was found to be dangerously thin, as evidenced by the scores of such needles broken in the mouth. In its place a heavier needle of about 22-gauge is recommended. Even the 21-gauge needle is employed by many oral surgeons abroad in carrying out mandibular anesthesia. The 25-gauge needle first mentioned is used exclusively for infiltration and still remains ideal for the purpose. For the tuberosity, and infraorbital injection, a needle of about 23-gauge is indicated.

Ten years ago, Dr. Fischer said that if he could secure novocain suprarenin solution in ampules which would remain stable, he would prefer it to the tablet form. Novocain already prepared in an isotonic solution, in ampules, is sterile and instantly available for use. It is far superior to the slow tablet-technic with its questionable sterility, and is rapidly growing in favor.

There seems to be an increasing tendency to syringes of the Record and Luer types. Such syringes have instantly interchangeable needles, hubs attached, and permit sterilization by boiling. They require no mechanical devices to take them apart. Dr. Fischer prefers and uses the Record syringe for the infraorbital injection.

The scope of the nerve supply of the jaws has been somewhat modified, with corresponding alteration in injection. The nasopalatine nerve supplies the palate only as far back as the cuspids. Its action was formerly held to include the bicuspid.

Conduction anesthesia of the upper bicuspid was previously sought through injection at the tuberosity. This technic is now supplemented by an injection in the canine fossa. It is further recommended by Fischer that, in blocking the first molar at the tuberosity, it is well to make a supplemental injection over the buccal apices of the first molar in order to insure success. The first molar receives some innervation from the middle superior dental nerve, which accounts for the incomplete anesthesia sometimes obtained at the tuberosity.

The research work of Dr. Sicher has served to modify Dr. Fischer's technic still further. He has called attention to the mucous membrane of the mouth and pointed out the advisability of making all injections for infiltration at the mucobuccal fold. In the absence of pathology, the needle is inserted at the angle formed by the dense gum and mucous membrane and advanced to the apex of the tooth involved. The needle is held parallel with the tooth root. Very little pain is felt when this point is pierced, and no pressure is required. It is far superior to the periodental, intraosseous, or subperiosteal methods of injection.

It has been taught that the most advisable method of executing the infraorbital injection was to insert the needle distal to the canine apex and advance to the infraorbital foramen. Dr. Fischer now recommends the technic of Dr. Sicher. The point of insertion is distal to the central apex in the mucobuccal fold. The needle, 5 cm. long, of 23-gauge, is advanced upward and backward toward the infraorbital foramen until it is felt by the index finger of the free hand, constantly on guard over the foramen. When carried out in this manner, the needle is made to enter the canal, as the anterior superior dental nerve which is sought lies within the infraorbital canal. The terminal nerve endings emerging from the infraorbital foramen have nothing to do with the teeth. One c.c. novocain suprarenin is deposited at the opening, and one-half c.c. within the canal itself. The foramen faces the median line and is most readily entered when the injection is made as suggested.

A very important point is to be noted in connection with the mandibular injection. Dr. Fischer formerly inserted his needle and straightway advanced backward to the mandibular sulcus. He now makes sure to find the internal oblique line first with his needle before passing backward. Once this valuable landmark is felt with the needle tip, the syringe swings over to the same side as the tooth involved. The needle is slightly advanced, whereupon a few drops of novocain are released to anesthetize the lingual nerve. The needle is then advanced backward to the mandibular sulcus, and in its final position the syringe should be about in the median line. The important point to be remembered is that constant contact with the inner surface of the ramus must be maintained. Muscles are thereby avoided, and all unpleasant results surely avoided. Incidentally, the sought-for anesthesia is obtained.

Dr. Fischer felt it unnecessary to anesthetize the long buccal nerve by a separate injection, depending entirely upon the action of the mandibular injection. He has found, however, that in many cases the long buccal nerve must be taken care of by itself. It is to be recalled that this nerve merely supplies the mucous membrane in the

region of the molars and sometimes the bicuspid of the mandible. It is simply anesthetized by slipping the 25-gauge needle beneath the mucous membrane in the first molar area, at the mucobuccal fold, and releasing about one-half c.c. novocain.

It must be urgently advised that the heavier-gauge needle be utilized in mandibular anesthesia. Never insert the needle to a greater depth than three-fourths of an inch. Under no circumstances bury the needle down to the hub. Avoid tremendous force in trying to infiltrate the teeth and jaws. It is entirely uncalled for. The palatal injection requires moderated sustained pressure, owing to the denseness of the mucosa. Do not allow the buccal tissues to balloon out, as this invites severe afterpain.

One rule which is inviolable is that a sterile needle, sterile syringe and sterile solution must always be employed.

152 West 42nd Street.

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## The Hope for Man's Future

It is a hopeful though long-distance view of mankind that Sir Oliver Lodge presented in a recent address in Liverpool. He does not, as a spiritualist, question the "animal ancestry" of man, but neither does he, as a scientist, question his divinity.

He recognizes the "hampering" of many relations on the bodily side. "Evil and ugly" the human creature sometimes appears; but he is young yet, immature. He is a comparatively recent comer on the planet. He is still in the making, in body, mind and spirit. He has in him, however, the "seeds of majesty," and though he may appear insignificant in the immensity of the universe, he has "infinite possibilities of development."

Man is indeed puny and lives on a planet whose sun even is "as a dwarf among the stars," but his mind is able to travel on the one hand to the outer borders of the universe, count its hundreds of millions of stars and take their measure, loose the bands of Betelgeuse in Orion and know the "sweet influence" in the heart of one of the Pleiades. On the other, it can and does descend with Sir Ernest Rutherford into the infinitesimal cosmos of the atom and see the electrons traveling from four to four hundred times faster than the "navy racer." And man does it with a freedom of the will that, though it gives him this all but infinite range, leaves him the choice of going back to associate with his "animal ancestry."

It is a nobler course that science marks out for man in such an address as this than Mr. Bryan and his followers insist upon in their near-sighted view of man's genesis and destiny.

## America's Most Important Natural Resource

*(Written for Dental Digest)*

There are a good many people who are entirely content to live in the present. When they are told that America's forests are vanishing and that our other natural resources are being wasted the attitude of many is one of complete indifference. "We should worry," they say. "It won't come in our time."

Nevertheless most of us are not that way. We have a certain amount of concern in thinking of the future of America, and we are willing to expend a certain amount of effort in trying to provide that future Americans shall not suffer by our carelessness today.

Now the one natural resource—the most important of all—which we are wasting most recklessly today is health. The figures prove that conclusively. Although there are 750,000 deaths yearly in this country from preventable disease, although half our school children suffer from physical defects and the death rate over forty is rising, we are spending per capita for health just about 29 cents a year. We spend from \$8 to \$10 on education, from \$2 to \$3 on police and fire protection. And on health 29 cents! Why, we spend 50 cents for chewing gum!

Realizing this condition, the American Red Cross, at the close of the war, set about trying to remedy it. It organized and launched a nation-wide public health campaign through which it hoped to cooperate with and draw together all existing public health agencies to stamp out preventable disease and to educate the people out of the ignorance and carelessness which make preventable disease possible.

The Red Cross Health Advisory Committee, consisting of such men as the late Dr. Herman Biggs, New York State Health Commissioner and Director of the Rockefeller Institute, Dr. Thomas S. Cullen of Johns Hopkins, U. S. Surgeon Hugh S. Commings, Prof. C. E. A. Winslow of Yale, have stamped with the seal of their approval the Red Cross program, and have urged expansion and continuation of practically all the Red Cross activities.

These activities are, first, public health nursing. The Red Cross wants to establish public health nurses in all rural and semi-rural communities that have no other existing health agencies. About eleven hundred of these nurses are now at work in such communities under Red Cross Chapter supervision. The policy of the organization in such cases is to appoint the nurse; then at the end of a year, when the results of her work have been manifested sufficiently, to turn her over to the community itself, upon whom maintenance then devolves. A minority of farseeing people in the community may have been responsible for her appointment in the first place, but it is usually a large majority that raises strenuous objection if there is any question of



attempting to dispense with her services. The Red Cross has "sold" public health nursing to a great many communities.

The second of the Red Cross activities is the Nutrition Service. Nutrition instruction is now recognized as an important factor in public wellbeing, efficiency and resistance to disease. The Nutrition Service of the American Red Cross is being developed in response to this general awakening to the need for more intelligent application of the principles of nutrition in everyday life.

Physicians' examinations have shown that about 20 per cent of the school children of the country are below normal weight for height and age. To aid in correcting this situation the American Red Cross Nutrition Service has developed three chapter activities—nutrition classes for under-nourished children, hot luncheons for schools, and a course in food selection for mothers.

The standard which the service has set for all this work is that it shall be educational. Spectacular results from proper diet may be obtained in a very short period, but the fundamental principles of nutrition must be applied by each individual every day if the benefit is to be permanent.

During the year 1921-22 approximately 1,800 nutrition classes were conducted with an enrollment of 105,000. The classes included groups of children, mothers, grade teachers, social workers, women and girls in industry and in business. Twenty-one thousand home visits were made by chapter nutrition workers.

The course in Home Hygiene and Care of the Sick is a third activity of the Red Cross program. This course has been given to thousands of women and girls throughout the country, as well as to the Girl Scouts, and it is being introduced into many schools. It teaches how to keep the family in health, and what to do when one of them falls ill. More than 42,000 received certificates upon completing the course last year.

Along with all this work the other activities of the Red Cross are still being maintained. The ex-service men, 26,000 of whom are still in hospitals, are not being neglected. The Red Cross spent \$8,000,000 on these men and their families last year, and the priority of the claims of disabled veterans is always recognized in the public health field.

Disaster Relief is being continued. In seventy-two disasters last year the Red Cross spent nearly a million and a half dollars.

The nursing reserve of 40,000 trained nurses, available to the government in emergency, is still maintained, and work with the regular Army and Navy is also going on.

For all this work the Red Cross needs the support of the American people. Those who do not realize or do not care about the conservation of our most important natural resource, health, must be aroused to a

sense of their responsibility. And it is up to those who do know to arouse them.

When you are asked to join the Red Cross, therefore, some time between the 11th and the 29th of November, take out a membership by all means, but do not think that your duty is ended then. It is not ended until you have used your influence among your friends to see that they also join.

## Where Teeth Do Not Decay

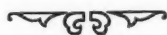
In a recent lecture given before the Physiological Section of the British Association, Dr. M. C. Grabham described his researches in Porto Santo, a small island northwest of Madeira, according to a report in the *London Morning Post*.

Dentists and toothbrushes, he said, were both unknown in the island, and this fact attracted his attention to the remarkably healthy condition of the teeth of the natives. He had personally examined the teeth of one-fifth of the population, and the insignificant number of cases of decay found could be traced to patients leaving the island and becoming infected elsewhere.

He ascribed this to a great extent to the highly mineralized water springs, which analysis showed to be rich in many chemical salts. A curious fact was that only soft food was eaten, and this in meagre quantities. Food was always taken cold, as also was the native form of coffee, and as the staple diet was porridge, made from maize, the teeth were never used for mastication. Meat and green vegetables were never eaten, scurvy was unknown, and neither gastric disorders nor malignant disease could be discovered, though he had encountered cases of consumption.

A remarkable feature was the appearance of a thin yellow line across the teeth in the upper jaw, which gradually spread and stained the teeth generally. This was due to the blood circulation extending into the tooth structure, as well as to some particular constituent in the local water. The island was only a short distance from Madeira, where the yellow stain was unknown, and it was therefore highly probable that it was due to local conditions. His experience was that in Port Santo the yellow stain was a sure indication of a sound set of teeth.

Among other exhibits was the skull of a native, which afforded an excellent illustration of the argument.



## What Communism Has Done for Dentists and Dentistry in Russia

By the Editor, from information furnished by Dr. Aguilar

Communism has broken the bodies and wrecked the fortunes of the Russian dentists. Some have died of hunger after having sold their last possessions to get food. Most of the others are hungry and cold, penniless and without dental instruments or supplies or literature. But their spirits are not cowed. Hope and ambition are not wholly dead. They feel that if they could be enabled again to begin the practice of dentistry, even in the smallest way, they could lift themselves from hunger to health and from health to achievement.



No. 1. Street in Russian city showing bullet holes in building. In some cities, the Bolsheviks obtained the supremacy only after continuous fighting for several days and nights. It is estimated that the war cost Russia 3,000,000 lives but that revolutions and epidemics have cost 18,000,000 lives.

Their fellow-practitioners the world over propose to help them do this by contributing the funds with which to purchase very modest outfits sufficient for the practice of the simplest forms of dentistry. Fortunately there is already functioning an organization ideally constituted through which the necessary information has been obtained and the aid may be rendered. It is the International Dental Federation. The story of the plight of our Russian confreres and an appeal for aid have been brought to American dentists by Dr. Florestan Aguilar, Secretary of the Federation, who has received from his pro-



No. 2. In many cities blocks of buildings have been destroyed and rebuilding is impossible. Portions of some cities are without water and sewers because of breakage of pipes and no repairs. Pavements are deteriorating.

fessional brethren many honors and who is spending his own time and money unstintedly in the work.

A brief outline of how such conditions came to pass is here told from information furnished by Dr. Aguilar and illustrated with pictures which he took. As much as is known at this time of the pledges of help is related. The purpose of this article is to interest dentists who have not heard the story and afford all who desire to help an opportunity to do so.



No. 3. One of the rooms assigned to a family. Stove in the far corner. The man in the bathtub is not nearly so emaciated as many members of our profession.



No. 4. A representative group of children. It is to the preservation of such children that much American relief has been addressed to the almost total exclusion of the professional class.

#### HOW THE CONDITIONS CAME ABOUT

Dentistry in Russia, prior to the revolution, was somewhat like it is in America, a means of earning a comfortable living and enjoying professional association for most men and a road to affluence for a few.

When Bolshevism overthrew its predecessors, all this was suddenly changed. Private ownership of property was abolished. A man and his possessions became the property of the state. The state took him and what he had. It doled out to him what it saw fit or could get as its resources dwindled. If he lived and worked, so much the better for the state; if he died, perhaps so much the better for him.



No. 5. A representative group of adults. The swollen ankles are not a sign of sufficient nutrition. They are indications of a trouble more clearly shown in Picture No. 11.



No. 6. A few of the dead awaiting burial.

This seizure was made worse by the fact that it was violent and in the fighting that occurred many were killed or injured and the conveniences on which a city depends, water pipes, sewers, electric service, etc., were destroyed.

What this meant, specifically for a dentist, was this: his entire office equipment was forcibly taken away. He never saw it again and he got nothing for it. Nobody appears to know what became of all these equipments. So far as any known use was ever made of them, they might as well have been thrown into the river.

The dentist was evicted from his home and assigned one room for his family. The homes may have been modest, but at least they



No. 7. A wagon load of the dead, stripped that their rags might protect the living, on the way to burial.



No. 8. Trench burial. No rites. No identification. The cadaver above the trench may well have been a starvation case. The emaciation is extreme.

No. 9. A former university professor, a man of fame, standing before a hovel, with his family. Most of their possessions are on their backs.



were homes. The rooms assigned were selected by the Commune. The maximum space allowed for a family was about 400 square feet. This was living room, bedroom, kitchen, bathroom and workshop, if home work could be gotten.

With the gradual reduction of the fuel supplies and their final almost complete failure, central heating plants ceased to function. Persons fortunate enough to get hold of a stove and scraps of fuel could have a little heat through part of the day.

Personal possessions were "communised." Money, clothes, with a few exceptions, buildings, securities, everything owned by the man who had worked and saved, were seized, ostensibly for the benefit of all, but, as it proved, mostly for the benefit of those who knew how to ride the waves of fortune. It resulted that when the dentist moved into his one room he had little enough to put in it to make it comfortable.



The dentist's activities were controlled. He was assigned work at the behest of the Commune. He was assigned a rate of pay which may at first have been sufficient to maintain health, but with the rising cost of necessities this rapidly became insufficient. Some dentists who had managed to retain a few personal possessions sold them to get food, and when this food was gone, quietly died of hunger. They were probably unnoticed amid the hordes who were dying from similar causes.

#### THE KNOWLEDGE OF CONDITIONS

The details of these conditions and the bitter want to which their professional confreres were reduced were unknown to the dental profession at large. But when the time approached for the meeting of the International Dental Federation in 1922, letters were received from Russian dentists of international reputation saying that they could not attend, not only because they had no money to travel but because they had neither food nor clothes. Some of these letters asked, with great restraint and with traces of that pride which had caused some of them to prefer death to alms, that, if possible, food and clothes be sent them to keep them alive until a brighter day dawned. Their solicitude for their families was evidently greater than for themselves.

#### TRANSLATION

No. 350

LETTER WRITTEN AFTER EFFORTS IN AID HAD BEEN PROMISED

*To the Intern. Dentist Federation:*

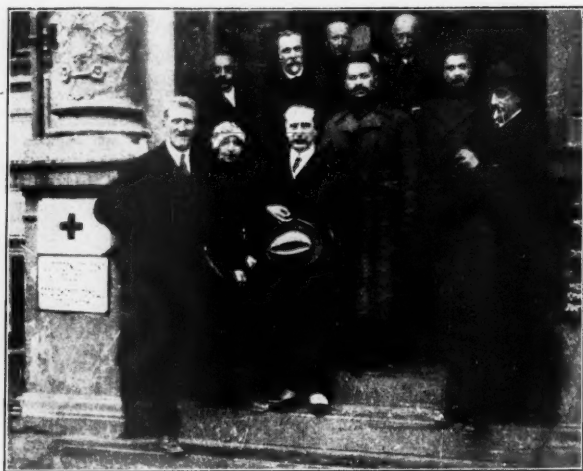
Your humanity and sympathy shown to the poor dentists make me feel deeply indebted to you, for the great service which you are rendering in sending the instruments and material. You will see how the situation is and judge by it that there can be no question of reselling the instruments. I am working as a dentist during 18 years, since 1905. My dental cabinet was taken from me in the year 1919 and private practice was prohibited. During the two years I received, as all my colleagues, the most miserable pay quite insufficient to cover the most urgent necessities.

With the introduction of the "NEP" (New Economy Policy) came the permission of renewing private practices, but none of the "nationalized" instruments was returned. Having no means to buy new instruments we cannot work. Through sending us good instruments you render us a very great service indeed and I express you my anticipated thanks for them. I am serving at present at the *Childrens-Homes* of the (Central Committee of the Far East) and there also the lack of instruments is complete.

I am drawing your attention to the fact that through helping us the Intern. Dent. Federation is helping the children who need dental assistance.

A. ZAMAROWITCH (Zinaida).

It seemed incredible to the members who received these letters that such things could be true in this day and in a supposedly civilized world. Yet men of such standing had not suddenly turned voluntary beggars or impostors. First-hand information must be had. If such conditions existed, something must be done and dentists were evidently the people to do it.



No. 10. Dr. Aguilar (with hat in hand) with the Russian Committee on the steps of the Red Cross Building in Moscow. Beside Dr. Aguilar there are present Dr. Daugue, Moscow; Dr. Kovarsky, Moscow; Dr. Trachtman, Saratof; Dr. Natason, Kazan; Dr. Vamberg, Odessa; Dr. Schwarz, Petrograd; Dr. Permont, Saratof.

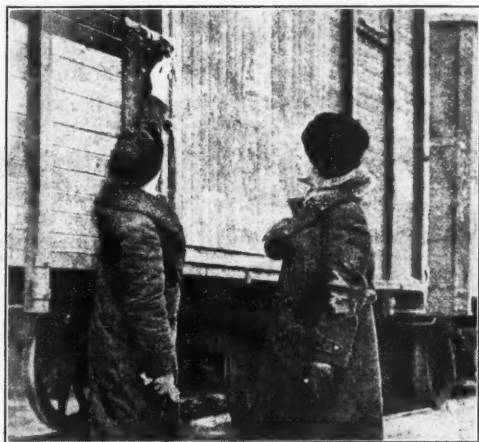
Dr. Aguilar visited Russia as the representative of the International Dental Federation. It was no small task to get there, but the story of how he did it cannot be told here. He met a committee of Russian dentists. (Picture No. 10.) Before they could assemble he had to get a permit from the government lest they be arrested for conspiracy. Not more than three persons can meet there without a permit.

The more he investigated the more restraint in the letters that had been written became evident. Conditions were far worse than had been



No. 11. Swollen feet, ankles and legs from going barefoot on floors with a temperature lower than freezing. This condition comes about only after intense suffering from chilblains. A demonstration can be had in our northern clime by going barefoot out of doors for a few hours at this season. Many dentists suffer from this condition.

stated. Some of the dentists were dead of hunger, others starving, others were diseased. A common form of disease is shown in Picture No. 11. It results from working barefooted in a room where the temperature is below freezing.



No. 12. Car locked and sealed for transportation of relief supplies without further inspection. Practically all relief supplies have reached their destinations. All sent by our Federation have been properly delivered.



No. 13. A typical hospital ward in Russia. No beds, no heat, no medicine, no hot water. Under these conditions, a hospital ward is merely a floor on which to die.

Dr. Aguilar found the Minister of the Interior anxious to help and secured three important concessions: the right of assembly for committee work under specified conditions, free transportation of relief supplies on the Russian railways, and admission of these supplies without customs duty to Russia. These are to be shipped in conjunction with the Nansen Relief, which is doing fine work. Picture No. 12 shows the manner of sealing a car for transportation without further inspection for duty. The Federation has already shipped many packages of food and clothes and every one has reached its destination.



No. 14. Food distribution to children like those shown in Picture No. 4. Nansen has distributed \$35,000,000, Hoover \$60,000,000, American Jews \$18,000,000.

Dr. Aguilar returned to Riga and to Berlin. A program was decided upon which would enable these dentists to get on their own feet, since this was better than temporary shipments of food or clothes. In conjunction with dentists well informed as to conditions and Mr. Alexander Kopp, who has given much time and attention and for whom Dr. Aguilar says no praise is too high, a list for an outfit suitable to permit these men to resume work in a small way was outlined and arrangements made for transportation free of Russian duty and freight.

#### OUTLINE OF INSTRUMENTS AND SUPPLIES

Many people in Russia undoubtedly have money. Probably many have made money out of the revolution. These people need dental services and can pay. Many who have no money have something to barter, such as food, clothes, etc. The dentist is now permitted to keep his earnings up to a moderate amount.

Dr. Aguilar brought the story of the conditions and an appeal for help to America and presented it at Cleveland. Fifteen hundred sets are needed. As shown in Dr. King's editorial, the House of Delegates voted funds for fifty sets, with an additional 100 sets to be paid for out of the Relief Fund. Each of the 200 delegates to the American Dental Association pledged himself to raise a sum equivalent to the price of two sets in his own state; this will make 400 additional sets. When all these are assembled, 550 sets will have been provided by American dentists.

#### WHY SHOULD AMERICAN DENTISTS DO THIS?

For their own sakes even more than for the Russians. Because we are blest more than almost any other people in the world at the present time. We cannot purchase a continuation of these blessings by giving any number of sets, but we can keep ourselves from getting narrow and selfish and small as blessings pour in upon us and we are protected from harm, other than of our own making.

This is an opportunity, not a demand. Americans have given enormously to feed Russians, about \$78,000,000 in all. But the professional class has been almost entirely overlooked. And even the farm laborer has often been better off than he. When the story of our effort was told to Mr. Hoover, he commended it highly.

Dentistry is the first profession to undertake the resurrection of its own in Russia. Dr. Aguilar said, when furnishing this information, that our example has already so stimulated one other profession that a group of representative men in it are sending a messenger to Russia to inquire into the conditions of its members there and what should be done and how.

Some of you will want an opportunity to help personally in this

work. You have prospered; your future is both safe and happy. Something away inside of you whispers that if you try to keep it all for yourself you may keep the material things but you will lose other things more precious.

By the time you get this the Christmas season will be near at hand. Wouldn't you like to feel that because of what you did, hope is dawning again in the life of a sorely-stricken confrere?

Anything from a dollar to the price of an outfit will help. You may send it to Dr. Otto U. King or to me. The sooner you send the less likely you are to forget and the more it will help. Contributions sent here will be acknowledged in this magazine.

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### Wonderful Fossil Discoveries

A tooth of a native ape, the only one known to the new world, and the skull and jaws of a monster prehistoric camel have been discovered by the Albert Thompson expedition in Nebraska. The announcement was made by Professor W. D. Matthew, curator of the department of vertebrate palaeontology of the American Natural History Museum.

The ape tooth Professor Matthew regards a very important discovery, since he declares, it shows that apes were at one time inhabitants of America. Professor Matthew is unable to say what period the tooth belongs to without a close examination. He does not think it belongs to the Miocene Age, the missing link period between ape and mankind, nor does he believe it will afford evidence which will alter his conviction that this continent was not inhabited by primitive man.

Of the habits of the ancient beasts whose fossil remains were found, Professor Matthew said little was known. That they filled some useful part in the far distant animal age in which they lived and that they inhabited the New World as well as the Old is shown by the many bones buried in ancient sandstone. He says that it remains to be seen whether further quest will throw any additional light on their origin.

—N. Y. Times.



# DENTAL LAWS

## Summary of Dental License Requirements Throughout the World

By Alphonso Irwin, D.D.S., Camden, N. J.

### FRANCE

#### STUDIES RELATING TO THE DIPLOMA OF SURGEON-DENTIST, AND CONDITIONS FOR PRACTICING DENTISTRY IN FRANCE. SPECIAL REGULATIONS IN REGARD TO FOREIGNERS

Special regulations relating to foreigners were already provided by article 7 of the Law of November 30th, 1892. These regulations have been modified by article 19 of the decree of January 10, 1909, reading as follows:

"Dentists qualified abroad, who desire to exercise their profession in France are obliged to pass the examinations provided by the present decree. From the first of November, 1909, they may obtain exemption from the obligatory course of study, and partial exemption of scholarship, after notification of the consultative Committee of Public Instruction, provided they possess the baccalaureate of secondary education, or a certificate of matriculation, or a certificate of primary superior studies."

In regard to foreigners, we have to consider those who enter France to carry on their studies with a view of establishing themselves in France on the completion of their studies; those who, having a diploma in their own country, come to France in order to exercise their profession, and finally those who with or without a diploma in their own country come to France, in order to pursue their studies with the view of obtaining a University degree, having no legal value, from which, however, they may derive advantage in the country of their origin, or with the simple object of following their studies without seeking diplomas.

In the following, it will be observed how different the rules of study are for these three categories of foreign students.

#### FOREIGN STUDENTS DESIRING TO ESTABLISH THEMSELVES IN FRANCE ON THE COMPLETION OF THEIR STUDIES

Those students who desire to settle in the Capital or the French



Colonies, when their studies are finished, are subject, of course, to the same studies as the French students, since the state diploma, which crowns their studies, confers on them the same rights.

The regulations provided by the decrees of January 11, 1909, and subsequent decrees are, therefore, applicable to those students since they have to accomplish five years' studies (2 years' obligatory course, and 3 years' scholarship). If these students are ex-soldiers of allied countries, or friends of France, they may benefit by special measures. They must, in addition, to enable them to be admitted to the obligatory course of study (first stage), have reached the age of 16 years, and according to the decree of January 11, 1909, must prove possession of the baccalaureate, certificate of matriculation, or certificate of superior primary instruction, or for young ladies, one of the three qualifications named above, or the certificate for the final studies in secondary education.

#### FOREIGN DOCTORS AND SURGEON-DENTISTS DESIRING TO EXERCISE THEIR PROFESSION IN FRANCE

The practice of dentistry in France is regulated by the Law of November 30th, 1892; the decree of January 11th, 1909, and subsequent ones lay down the conditions of study for the diploma of surgeon-dentist.

The diplomas, patents, licenses conferring the right of legally practising the profession of dentistry in different countries possess no value whatever in France, and do not afford any right to carry on dentistry upon the territory of the French republic, or her Colonies.

The only diplomas conferring the right of legally practising the dental profession are:

The French state diploma of Doctor of Medicine;

The French state diploma of Surgeon-Dentist;

The diploma of the Alsatians and Lorrainers having acquired validity for the practice of dentistry, upon the entire French territory, by the Law of July 13th, 1921.

In passing, it may be again mentioned, that the right of practising dentistry is maintained for those put on the dental register in France by patent, on the first of January, 1892.

Foreign doctors or dentists, whatever may be their acquirements or degrees, cannot, therefore, carry on their profession in France, except they have obtained the French diploma of doctor of medicine, or surgeon-dentist.

We have seen that the studies for obtaining the diploma of surgeon-dentist cover a minimum period of 5 years. Foreigners wishing to practise dentistry in France, are they to continue their studies for 5 years, like the young students?

Article 19 has provided for eventual reductions in the period of the obligatory course and of scholarship.

At the outset one essential point must be borne in mind, that if, as will be seen further on, a reduction is made for the candidate in the duration of the studies, it can have no reference to equivalents, nor to exemption from examinations.

The Foreign dentist must first of all acquire one of the French qualifications required of regular students—the baccalaureate, a certificate of matriculation, or the certificate of superior primary education. A good knowledge of French will be indispensable for the candidate as the examinations are held in French.

One of the qualifications cited above having been obtained, the candidate may obtain exemption of the obligatory course of study (stage, 2 years) and partial relief of scholarship (1 to 2 years), after notification of the consultative committee of Public Instruction of France, which may reduce the studies for these candidates to 3 years, 2 years or 1 year. The candidates, even should they obtain the reduction of scholarship are compelled to undergo all the examinations provided for the students carrying out the regular studies.

The candidate desirous of profiting by the reductions of studies provided in favor of foreigners possessing diplomas, must address their request to the Minister of Public Instruction in France. This request must, of course, be accompanied by documentary proofs, such as, extracts from certificates as to educational qualifications, copies of diplomas, etc.

The Minister of Public Instruction, and the consultative Committee of Public Instruction will decide upon each candidate's case after examination of the proofs bearing upon it, viz.: studies, university diplomas, work, etc. The candidates having served in allied armies, may usefully add particulars of their military service.

#### STUDENTS ENTERING FACULTIES OR SCHOOLS, IN ORDER TO COMPLETE THERE THEIR UNIVERSITY STUDIES

Young persons coming from abroad to our Faculties or Schools in order to pursue their studies without any intention of settling themselves in France, will benefit by a special regulation. These students come to us for the purpose of gaining professional instruction which will be of service to them in their own country. They may obtain divers diplomas, as for instance:

Diploma of Surgeon-Dentist of the University;

The Faculties of Nancy, Lille, and of Bordeaux issue diplomas of Surgeon-Dentist of the University. These diplomas do not accord the right of practising dentistry in France.

## FACULTY OF MEDICINE OF NANCY AND LILLE

Students who are foreigners, in registering for the acquirement of the diploma of the University, must produce the degrees they hold from the University of their countries. They are allowed to register after notification of the faculty, that the degrees submitted have been judged to be equivalent by the consultative committee of Public Instruction and with the concurrence of the Minister of Public Instruction.

The studies and the examinations are the same as for the state diplomas, the fees for the studies are the same, except as to the rights of the certificates of aptitude and of the diploma.

The diploma conferred at the conclusion of the studies will be that of "Surgeon-Dentist of the University."

## FACULTY OF MEDICINE OF BORDEAUX

The Faculty of Bordeaux likewise issues a diploma of Surgeon-Dentist of the University to Foreigners. The candidates for this diploma—

1. If they have pursued anterior studies, or studies carried out with the Foreign Faculty, must forward a request for admission to the Dean of the Faculty of Medicine of Bordeaux, indicating the nature of their foreign diplomas.

2. If they have never followed any studies in default of a University diploma; they must bring certificates that they have practised dentistry or certificates that they are dental mechanicians.

All documents are examined and the result, accordingly, will be rejection of the request, or admission is granted and the period for study indicated.

## DIPLOMAS OF THE INDEPENDENT DENTAL SCHOOLS

Certain foreign students also come to the Dental Schools for professional instruction and a diploma, which from the legal standpoint has no value whatever in France, but may confer on them advantages, perhaps even the right to practice in certain countries. These students come to carry on their studies, others to complete studies, which they have already commenced.

The conditions for admission, the duration of the studies, the fees for the studies are variable in regard to the schools and are specified in their respective calendars.

Verified August 1st, 1923.

## GEORGIA (U. S. A.)

The Board of Dental Examiners consist of: Thomas Cole, D.D.S.,

President, Newman, Ga.; D. D. Atkinson, D.D.S., Sec'y-Treas., Brunswick, Ga.; S. D. Rambo, D.D.S., Marietta, Ga.; P. E. Callahan, D.D.S., McRae, Ga.; H. H. Johnson, D.D.S., Macon, Ga.

The dental laws of Georgia are dated Aug. 24th, 1872; Oct. 20th, 1879; Oct. 9th, 1885; Dec. 15th, 1897; Aug. 13th, 1909; Aug. 17th, 1920; June, 1921.

Requirements: Applicants must present diploma from a reputable Dental College. Fee \$20.00. Examination in theory and practice; the latter includes the insertion of gold fillings.

Interchange of license with any State under agreement. Licenses may be revoked for cruelty, incapacity, unskillfulness, gross neglect, indecent conduct, professional misbehavior, unfitness, and conviction of any misdemeanor in any court in this State.

Licenses must be registered by the Clerk of the Superior Court in the county in which the person shall practise. Meetings, at the close of the college term, and at the annual meeting of the Georgia State Dental Society. For further information, apply to the Secretary, Dr. D. D. Atkinson, Brunswick, Ga.

Verified December 15th, 1922.

## NOTICE FORM

### BOARD OF DENTAL EXAMINERS OF GEORGIA

Brunswick, Ga.

192 .

This Board will meet in Atlanta on (about) .  
The date of meeting has been fixed. We examine all  
applicants both in theory and practice.

Theoretical examination consists in Anatomy, Physiology, Materia Medica, Metallurgy, Chemistry, Prosthetic Dentistry, Operative Dentistry, Oral Surgery, Pathology, Bacteriology, and Orthodontia.

Practical examination consists in Gold fillings in the mouth, articulating full denture in wax, and carving a tooth. Applicants furnish patients.

You will be required to present your diploma.

The Board will meet at the time and place of the Georgia State Dental Society's annual convention, which this year will be at

on day of .

Examinations will be held also at this session.

Only graduates of colleges "whose term and curriculum are equal to that of a majority of the Schools of Dentistry of the United States" will be admitted to the examination. Fee for license \$20.00.

Remarks:

D. D. ATKINSON, *Sec'y-Treas.*,  
Brunswick, Ga.

## PRACTICAL HINTS

This department is in charge of Dr. V. C. Smedley, 604 California Bldg., Denver, Colo. To avoid unnecessary delay, Hints, Questions and Answers should be sent direct to him.

NOTE—Mention of proprietary articles by name in the text pages of the DENTAL DIGEST is contrary to the policy of the magazine. Contributions containing names of proprietary articles will be altered in accordance with this rule. This Department is conducted for readers of the DENTAL DIGEST, and the Editor has no time to answer communications "not for publication." Please enclose stamp if you desire a reply by letter.

### *Editor Practical Hints:*

Kindly help me out on following: Man around fifty-five years of age; teeth extracted some time ago and now ready for plates. The muscles around his mouth are drawn so tight that I have great difficulty in getting tray in free of molding compound or plaster Paris.

I would appreciate your advice in regard to this. Is there any way in getting an impression in this case? J. E. F.

ANSWER.—This condition can be largely obviated by instructing the patient to stretch and massage the lips daily for a few weeks, as many times a day as is convenient. The lips should be thoroughly lubricated with vaseline, cold cream or something of that nature, two fingers of each hand placed in the corners of the mouth and the lips stretched and massaged freely. If at the end of this time the mouth is still too contracted to permit of the insertion of the necessary sized impression tray, a wax tray may be made to approximate the shape of the mouth. This wax tray may be warmed slightly at the median line and bent together at the heels for insertion into the mouth, after which the heels may be bent out to conform with the ridges for trial fitting. It must then be again bent in at the heels for removal. Now warm again in center, fill with soft plaster, insert into the mouth, press heels out to conform to ridges and seat. When the plaster is hard, fracture, take out in pieces and re-assemble for pouring.

—V. C. SMEDLEY.

### *Editor Practical Hints:*

Will you please tell me how to keep the hubs of platinum needles bright inside and outside? I have a great deal of trouble with hubs of needles turning green when kept in alcohol or simply dry. It is my

opinion that this condition is conducive to a good deal of post operative trouble.

H. I. B.

ANSWER.—In our office the platinum needles are sterilized by boiling, dried carefully and then placed in a sterile container. When needed again they are fired before using. Every two weeks or so, if the needle begins to darken, a brush is placed in the hand-piece and the needle is polished inside and out.—V. C. SMEDLEY.

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*Editor Practical Hints:*

Am sending you impressions of a boy's mouth, age 15. Do you advise any extraction? Could a dentist with ordinary experience in orthodontia undertake this case? Any information you can give will be greatly appreciated. Thanking you in advance, I am yours truly,

W. R. M.

ANSWER.—It is impossible to advise you with any great intelligence or degree of finality on this case merely from the rough impressions of the mouth you sent, but it is my impression from what I can see of the general position of the teeth that you would not be justified in extracting any of those teeth nor would your patient derive any benefit from that procedure.

In answer to your second question: I would say no. Send the patient to an orthodontist who is qualified to carry on such a case as this scientifically and properly.—V. C. SMEDLEY.

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*Editor Practical Hints:*

Have written to you before on one or two occasions in regard to certain cases of mine and having followed your instructions have been more than satisfied with results. Now I would appreciate further advice. I have always been very much interested in extraction work, have never had too much of it and want a lot more of it. Would you advise me to specialize in extraction? Do you think the field is overcrowded? Where could I go in the West to take a post-graduate course in extraction and nerve blocking? Do you know of a city in Colorado or other western state where an extraction specialist could locate and in addition to what he would naturally get could also depend on other dentists to refer their extraction cases to him? Do extraction specialists get good fees?

R. B. M.

ANSWER.—Would suggest that you write Doctor George B. Winters, 519 Frisco Building, St. Louis, for information regarding a post-graduate course in extraction. Doctor Wyman who is extracting specialist in our group, took Dr. Winter's course and considers it of great value. My personal opinion is, as you suggest, that the field is overcrowded

with men attempting to devote their entire time to extracting. I believe the pendulum is swinging back from the wholesale extraction of teeth to a much more conservative basis than was the case a couple of years ago. I also think that extracting specialists, unless they are associated, as in a group, with men in general practice are a menace to humanity because of the entirely natural tendency that is in each of us to see the need of the thing we specialize in in every mouth we look into. Extracting specialists get much better fees as a rule, I believe, than the average general practitioner doing extracting.

—V. C. SMEDLEY.

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*Editor Practical Hints:*

Can you give me the latest approved treatment of "Trench Mouth" or "Vincent's Infection?" What is the specific remedy?

E. G. T.

ANSWER.—In reply to your inquiry, please refer to Practical Hints, February, 1921, and find my answer to Dr. S. C. Cooper.

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*Editor Practical Hints:*

Would greatly appreciate your advice on the following case: Lady, age 67, has been wearing an upper and lower pair of dentures for twelve years. These are made of black rubber. She complains of what she calls a "hot mouth," saying that her mouth seems to be in a burning condition all the time since she begun wearing dentures and now doesn't get any relief even by leaving the dentures out. On hearing her symptoms described I at first thought it was a case of "Rubber Mouth," but on examining the mouth, the tissues instead of being in a reddish inflamed condition, as I expected, are as normal in appearance as anyone would ever see.

This lady claims to have been to different men for relief, some saying that they couldn't do anything for her, others advising aluminum dentures.

W. A. W.

ANSWER.—The black rubber should be less apt to produce "hot mouth" or burning and drawing sensation under plates than any colored rubber, but no doubt a metal base is preferable for this condition. At any rate, whether dentures are of rubber or metal it is essential to provide a liberal and carefully placed relief over the foramina areas—anterior palatine, both posterior palatine upper, and both mental on the lower jaw. For the anterior palatine, relieve quite liberally by scraping the impression over the large median rugal papilla and extending backward on each side over the rugae.

The posterior palatine foramina can usually be located by palpating with the tip of a finger just forward of the junction of the hard and



soft palate and toward the median line from the condyles. With a little experience one can sense the pulse beat in the artery where it emerges with the nerve trunk from the foramen and often one can discern with pressure the outline of said foramen and usually pressure upon the nerve at that point will produce a dull pain. Relief should be provided immediately over these foramina and one-half inch or so mesially over the area of distribution spreading out fan-shaped from each foramen. The mental foramina may be located in a similar way on the buccal slope of the mandibular ridge in the bicuspid region. This relief should extend both mesially and distally from the mental foramina being carried rather more distally than mesially.

—V. C. SMEDLEY.

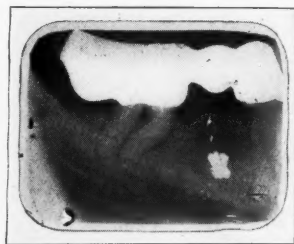
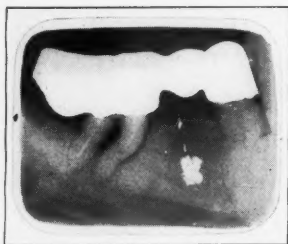
(NOTE—As we have received a number of enquiries on the subject of "hot mouths," "burning sensations with dark rubber plates," "dry mouth troubles," etc., we must refer our correspondents to the answer to W. A. W. given above as practically covering such information as may be given in a brief form.)



## CORRESPONDENCE

*Editor, DENTAL DIGEST:*

Knowing that you are always on the lookout for strange things that may happen in the dental profession I am enclosing for your consideration an x-ray film with a peculiar condition in the bone under



the bridge. The first x-ray I took of this case showed this same condition and thinking it was just a defect in the film I paid no attention to it at the time, but recently I had occasion to take another picture of this case and found the condition exactly the same.

Would you mind giving me your opinion of this?

M. F. HENLE.

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*Editor, DENTAL DIGEST:*

In the September number of THE DENTAL DIGEST I notice an article on Reciprocity with a plan for the same. I think some such move whereby the better element of our profession (that is those professionally, morally, and educationally qualified) could have national recognition would be an excellent proposition.

We have in mind a reciprocity proposition on a somewhat smaller scale, but none the less deserving, that should have been enacted by all State Boards some time ago. Every state in the United States under the direction of special or regular Boards furnished qualified dentists to the Army during the Great War. If these dentists were good enough to work on the men of our Army everywhere during that crisis, the United States is none too good to be their open field. Each should be subject to registration in the different states on presentation of his diploma and a copy of his honorable discharge from the Army. This is a courtesy and an honor due the ex-service dentist, and we

believe that when the matter is brought to the attention of the many State Boards all will promptly take the necessary steps toward the enactment of such a law.

F. WIGGINS, D.D.S.

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*Editor, DENTAL DIGEST:*

In regard to the communication in the *DIGEST* from Dr. Sprinkel regarding gagging patient, I used tincture of camphor applied with index finger, massaging the palate for one or two days, each day as far as the patient would permit, until you work back on the soft palate—and do the same again before the denture is placed—or even apply some to the heel of the denture, and I believe the condition will be cured up. It is well to take your original impression while the patient's stomach is empty, and he can even gag a little if necessary.

A. B. PRICE, D.D.S.

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*Editor, DENTAL DIGEST:*

Concerning case of Dr. C. C. Sprinkel, in the Correspondence Section of a recent number of *THE DIGEST*, I wish to state that I had a case similar to Dr. Sprinkel's, with which I had pleasing results, obtained with the following procedure:

I had the patient take an effervescent bromide tablet dissolved in one-half glass of water, one hour before attempting the impression (patient being of a nervous type). Then I made a 4% novocain solution and had patient take a mouthful of same and work it back and forth for about five minutes. After this I was able to take a plaster impression without the least trouble. In putting in the trial plate, I again had to resort to the novocain mouth-wash, and also in fitting the denture, with perfect results. For about ten days the patient was more or less subject to gagging from wearing the denture, but every time this occurred patient would moisten the plate with a 2% novocain solution, which I had prescribed to use in case of gagging, and the result was that the denture was worn continually and the tissue adapted itself to the presence of the plate, and patient is now wearing same without any ill effect. In fitting the denture, care should be exercised that it is not extended further than one-sixteenth to one-eighth of an inch on to the soft palate, as this will cause gagging even in ordinary cases.

WM. J. LAUER.



# DENTAL LABORATORIES

## Resumé of the Meeting of the American Dental Laboratories Association

CLEVELAND—September 11-12, 1923

By Sam'l G. Supplee, New York, N. Y.

The fourth meeting of the American Dental Laboratories Association, but the first at which a regular program of clinics and papers was given, proved to be a wonderful success and was attended by representative laboratory men from most of the States in the Union. The program, covering two days, was well received and all who attended were most hearty in their praise of the wonderful possibilities of the Association.

The officers responsible for the preparation of the program and its presentation were as follows:

Sam'l G. Supplee, President  
J. C. Schwartz, Vice-President  
W. H. Schroll, Secretary  
I. J. Dresch, Treasurer

### MEMBERS OF THE COUNCIL

B. I. Martinez, St. Paul, Minn.  
H. P. Boos, Minneapolis, Minn.  
F. C. Miller, Detroit, Mich.  
E. L. Mueller, Omaha, Neb.

The program adhered very closely to the object of the Association as set forth in the By-laws adopted the previous year, viz., "to promote and advance the science and art of mechanical dentistry, to co-operate with the dental profession, and to provide for the dissemination through the dental laboratories of knowledge concerning this subject, and to encourage the study of the various phases of this specialty."

The greater part of the program was devoted to subjects of mutual interest among the laboratories along the lines of producing better work and establishing a closer relationship between the laboratories and the dental profession.

The first subject of vital interest to the organization which was discussed was a Code of Ethics. This code had been formulated two years before by Dr. Adolph Gropper of the Bundee and Upmeyer Laboratory of Milwaukee. A number of suggestions were made, but the most valuable contribution was given by Dr. J. R. Schwartz of Brooklyn. A Committee was appointed, with Mr. I. J. Dresch as Chairman, to collaborate further with Dr. Gropper and Dr. Schwartz and complete the formulation of the code and report at the next meeting of the Council.

A number of applications were received for membership and those who had been on the waiting list for the past year were voted into full membership.

It was also suggested that the Constitution and By-laws should be amended to provide for delegates representing the various local laboratory associations. This was favorably received and plans were made for further consideration on the subject at the next meeting.

Laboratory men present were requested to report to their societies and to bring suggestions to our next meeting, with the object of establishing the most effective means of collaborating with the local organizations. The following papers were presented:

Mr. Sam'l G. Supplee, of Sam'l G. Supplee & Company, New York N. Y., read a paper on "Some suggestions in standardizing requirements for impressions, bites, measurements, etc., to enable the laboratories to produce better results."

Dr. P. C. Lowery, Detroit, Mich., gave a very interesting talk on the "Selection and arrangement of teeth, covering color harmony and the application of the optical illusion effect in arrangement."

Dr. George Wood Clapp, of the Dentists' Supply Company, New York, N. Y., gave a most instructive talk, in his characteristic, masterful way, on the subject of "Costs, prices and quality as applied to dental laboratories."

Mr. Henry P. Boos, of the Henry P. Boos Laboratories, Minneapolis, Minn., rendered a very valuable paper accompanied by a "chalk talk" and practical clinic, demonstrating the application of "Pontics with porcelain roots and tips."

Dr. M. M. House, of the Deaner Dental Institute, Kansas City, Mo., gave a wonderful talk on "The commercial dental laboratory—its past, present and future." Being an ex-laboratory man, Dr. House was in a position to offer some excellent advice to members of the organization and lay out in a graphic way the importance of the laboratory men getting together and collaborating with the dental profession; and he emphasized the advisability of the dental profession being more liberal in recognizing good laboratory men who are endeavoring to conduct an ethical business.

Mr. B. I. Martinez, of the B. I. Martinez Dental Laboratories, St. Paul, Minn., gave a paper and practical demonstration on "How Dr. Monson's spherical principles can be applied to dental laboratory service."

Mr. E. L. Mueller, of the Billings Dental Laboratory, Omaha, Neb., read a paper on "Laboratory teamwork" and "Relation of dentists to the laboratory," setting forth some very valuable information which could and should be used by every laboratory and dentist.

Mr. I. J. Dresch, of I. J. Dresch & Company, Toledo, Ohio, gave a very practical "chalk talk" and paper on "Design and construction of cast clasps for tooth-bearing and tissue-bearing restorations, together with saddle area design for tissue-bearing partials."

Mr. W. H. Schroll, of the American Dental Laboratory, Chicago, Ill., gave an illustrated talk on "Financial statistics and statistical reports, and their value to the management." In a graphic manner Mr. Schroll emphasized the possibilities of laboratory men being more familiar with their details of costs, etc.

Mr. J. R. Schwartz, of the Berry Dental Laboratory, St. Louis, Mo., presented a practical clinic showing for the first time a new tooth for use in porcelain root tipped bridgework which can be readily standardized, and if efforts to have it placed on the market are successful, it will prove a great time and cost saver to both the laboratory and the dentist. Mr. Schwartz also presented a simple technic for constructing special gum blocks.

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There was no stenographic report of the discussion and clinics accompanying each paper because of the conditions under which they were given, and it was decided that it was not advisable to attempt to publish the papers and clinics in detail, but, as laboratory men throughout the country may be interested, a summary of these various subjects may be published in further detail at a later date.



# DENTAL SECRETARIES and ASSISTANTS

## Secretaries' Questionnaire

All questions should be addressed to Miss Elsie Pierce, care of  
DENTAL DIGEST, 220 W. 42nd St., New York City

*Kindly give me some information along these lines: First. Polishing of instruments. After sterilization they have a tendency to turn dark. I have used any amount of polishes that brighten them but after they are in use for a short time they begin to turn dark again. Second. Reception of patients having no appointment. When a person comes into the reception room he asks if the doctor is in; I say, "He is," and "What can I do for you?" He says, "I just want to see the doctor." Some people think everyone in the world is a dumb ignoramus but themselves.*

*I have been a dental assistant only a short time and I am eager to make good. Any information you can give me will be very much appreciated.—L. C. P., Cambridge, Md.*

Methods for polishing instruments have been given in previous questionnaires. Look them up; they may help you. Do you use bicarbonate of soda in the sterilizing water? This helps to prevent rust. Instruments should never be left standing for a long period of time without cleaning. If they are hopelessly corroded they should be renicked. Prompt and careful cleaning is the only thing that will keep instruments and equipment always in perfect order.

As to the reception of patients that have no appointments (and those who have) I can advise only that you use as much tact and diplomacy as possible and urge you to take their manner towards you as a part of the day's routine and not as a personal affront. When people call to see the doctor, greet them courteously and inquire if their calls are personal or professional. Then say, "The doctor is busy just now. I will take your message to him," or "I will see just how soon the doctor can see you. Will you not be seated for a moment?" Then consult with the doctor as to his pleasure and return his message to the caller. If it be a business call in which the doctor is not inter-



ested, ask the caller to leave his card for future reference saying, "Dr. Blank regrets he cannot see you today. He may be interested in your proposition at some future time. Will you leave your card?" If it is a patient who insists he must see the doctor at once you can say, "Doctor Blank has a patient in the chair but will see you as soon as possible." Assist patients to remove their wraps and ask if there is anything further you can do to make them more comfortable. If the caller is a patient who has come in to make an appointment, try to do this without disturbing the doctor. You can say that the doctor is busy and has asked you to arrange an appointment at his convenience.

Always bear in mind that patients and business associates of the doctor's do not come to the office to see you, and that your position demands that sort of good judgment which will enable you to exercise the responsibility which the doctor places in you, at the same time not making you the "bumper" of all irate callers.

*I am interested in reading the Secretaries' Questionnaire and have received many helpful hints. I wish to ask one or two questions. First, What part of the laboratory work is expected of an assistant? Second, What wages should an assistant receive who takes entire care of a four room office, makes appointments, answers telephone, has entire charge of books and correspondence, orders supplies, prepares all fillings, compounds, bite wax, etc., makes gold crowns, develops X-rays, finishes all dentures after they are waxed and repairs broken ones, besides helping at the chair. These are the most important things. I shall greatly appreciate any information you can give.—E. M. S.*

"What part of the laboratory work is expected of an assistant?" It has been said that the dental assistant who is earnest in her desire to be efficient and make of her chosen profession something worth while must be master of all the phases of dental office procedure which do not come directly under the prerogative of the dentist; that is, operations in the oral cavity. What the actual work of the assistant should be is perforce regulated by the type of office in which she is employed and the number of assistants therein. However, limitation in her work should be imposed upon her only by lack of time in which to care for the many duties accruing to a busy dental office. The more knowledge she can acquire, the greater number of duties she can perform, the greater will be her value to the office. As far as salary is concerned, that can be determined only by the dentist himself and his willingness to pay a fee commensurate with adequate service; this again depends largely on the type of office and its income and whether located in a large city or a small town. Each case is perforce individual so it is impossible to decree arbitrarily certain limitations or remunerations.

The assistant is paid for the time she spends in the office and the dentist expects her to put in *all of the time* keeping busy with the duties of the office. There are, of course, offices where competent services are not appreciated; in that case my suggestion would be to find one where they are.

Several inquiries have come in from dental assistants in various parts of the country who desire to know when and where State dental meetings of dental assistants are to be held. We should be glad to have this information to pass along, not only about the annual meetings but also about any others in which our readers might be interested.

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## Business Life Record of 100 Men

### At 25 YEARS

100 men, all strong, vigorous,  
working and preparing for  
advancement.

### At 35 YEARS

5 have died  
10 are wealthy  
10 are in fairly good circum-  
stances  
40 have only moderate means  
35 FAILURES.

### At 45 YEARS

16 have died  
3 are wealthy  
65 are self-supporting but with-  
out resources  
16 are no longer self-supporting  
(81 FAILURES.)

### At 55 YEARS

20 have died  
1 very wealthy  
3 in good circumstances  
46 self-supporting but without re-  
sources  
30 dependent on children  
(4 SUCCESSES.)

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## EXTRACTIONS



No Literature can have a long continuance if not diversified with humor—ADDISON

The age of discretion is that at which compliments no longer increase the circumference of your anatomy above the ears.

(Burglar—to lawyer after being acquitted)—Thank you very much, sir. I will drop in and see you soon.

(Lawyer)—Very good, but in the daytime, please.

(Fashion Note)—Ladies' fur coats will be worn longer this year. Pants will be worn longer by the husbands who buy the coats.

It is estimated that the energy now used to condemn sleeveless gowns is sufficient to teach 674 critics to mind their own business.

(Sara)—Any excitement during your vacation?

(Clara)—Not a bit. Saved twice while in bathing by married men who were honeymooning and once by a colored porter.

Any ordinary man can make a fortune. The hard part is to refrain from consuming each week's instalment as you get it.

(Doctor)—You have been at death's door, my friend. Only your strong constitution saved you.

(Patient)—Say, Doc, will you kindly remember that when you send in your bill?

If your brains won't get you into print, you can always sign a patent medicine testimonial and grab off some publicity for your stomach.

With the advancements that are being made in surgery we think that some day the doctors will conduct their business like battery service stations, that is, they will rent you a lung or liver to wear while your old one is being repaired.

Scientists describe Greece as the cradle of human civilization. And somebody is always rocking the cradle.

Nothing gives a man such a distinguished air as a coat that bulges slightly about the hips.

People can no longer bet on Bryan, but when they feel reckless they can buy oil stock.

(Judge)—Rastus, are you a married man?

(Rastus)—No, sah; I earns mah own livin'.

We read these days much that is caustic concerning the daring manner in which femininity gowns herself; yet none of the men appears to be protesting to the extent of wearing smoked glasses.

Our idea of a patient man is the one who bought a century plant to see if it really would bloom every hundred years.

(Myrtle)—So you let your husband carry a latch key?

(Clara)—Oh, just to humor him. He likes to show it to his friends to let them see how independent he is—but it doesn't fit the door.

"I saw a man run over himself today."

"Why, Doctor, how could such a thing be possible?"

"Well, it's this way. Joblots called his office girl to go across the street to ask a friend about an appointment, but the girl had gone home, so he ran over himself."

(Crawford)—The wild life of the country is being destroyed to make fur garments.

(Crabshaw)—Too bad! But if it wasn't for that we'd have wild women.

(Paul)—A Hebrew out in Utah turned Mormon, but nobody knew about it until he was dying.

(Pauline)—But how then?

(Paul)—When the doctor came he found Abie charging his wives five dollars for ringside seats around his death-bed.

## FUTURE EVENTS

THE NEBRASKA STATE DENTAL BOARD examination will be held November 5 to 9, 1923, at the Creighton Dental College, Omaha, Nebraska. Practical work to be given the first two days, and written the last three days.

DEPARTMENT OF HEALTH AND WELFARE  
Bureau of Examining Boards  
J. D. Case, Superintendent.

THE GEORGIA STATE DENTAL SOCIETY will hold its annual meeting this year at Athens, Ga., November 7, 8, 9, 1923.

A special Meeting of the BOARD OF DENTAL EXAMINERS OF ALABAMA will be held in Mobile, beginning Monday, December 3, 1923, for examining applicants for license to practise dentistry in Alabama, and for conducting such other business as may properly come before it. Those desiring to take this examination must submit their application and credentials in proper form to the Secretary-Treasurer at least two weeks before this Meeting, or be barred from the examination.

H. CLAY HASSELL, *Secretary-Treasurer*,  
616 22nd Avenue, Tuscaloosa, Ala.

Second Mexican Dental Congress, called by FEDERACION DENTAL MEXICANA, correspondent of the INTERNATIONAL DENTAL FEDERATION, will meet in the City of Mexico, December 10-15, 1923, under the honorary presidency of the President of the Republic, Gen. Alvaro Obregón.

FEDERACION DENTAL NACIONAL MEXICANA extends a cordial invitation to the members of the Dental and Medical professions to attend the meeting.

Organizing and Executive Committee:

Dr. José J. Rojo, President.  
Dr. Pedro Gracia Medrano, Vice-President.  
Dr. José L. Galván, Secretary.  
Dr. Moisés Montiel C., Pro-Secretary.  
Dr. Ernesto Paz, Treasurer.  
Dr. Ignacio Rodríguez Grajales, Teller.

DR. DIEGO MEZA, President of the Committee for  
Information and Publicity.

A meeting of the DENTAL BOARD OF THE STATE OF OKLAHOMA will be held at the State Capitol Building, Oklahoma City, December 17-21, 1923.

L. M. Doss, *Secretary*,  
248 American Nat. Bank Bldg.,  
Oklahoma City, Okla.

The Annual Meeting of the DENTAL PROTECTIVE ASSOCIATION OF THE UNITED STATES will be held at the Palmer House, State and Monroe Streets, Chicago, on the third Monday of December, the 17th, 1923, at 4 P. M. sharp. The report of the Officers will be given; a Board of Directors will be elected and such other business transactions as should come before the Association.

All members are urgently requested to be present.

By Order of Board of Directors,

J. G. REID, *President.*

D. M. GALLIE, *Vice-President and Treasurer.*

E. W. ELLIOT, *Secretary.*

## STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS, OF AUGUST 24, 1912

OF THE DENTAL DIGEST  
at New York, N. Y.

State of New York }  
County of New York } ss.

Published monthly  
for October 1, 1923

Before me, a Notary Public in and for the State and county aforesaid, personally appeared John R. Sheppard, who, having been duly sworn according to law, deposes and says that he is the Secretary of the Dentists' Supply Co., Publishers of THE DENTAL DIGEST, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are:

NAME OF	POST OFFICE ADDRESS
<i>Publisher, THE DENTISTS' SUPPLY COMPANY</i>	220 West 42nd St., New York, N. Y.
<i>Editor, GEORGE WOOD CLAPP</i>	New Rochelle, N. Y.
<i>Managing Editor, GEORGE WOOD CLAPP</i>	New Rochelle, N. Y.
<i>Business Manager, L. W. DUNHAM</i>	New Rochelle, N. Y.
2. That the owners are:	
THE DENTISTS' SUPPLY COMPANY	220 West 42nd St., New York, N. Y.
DE TREY & Co., LTD.	23 Swallow St., London, England
LEROY FRANTZ	Sutton Manor, New Rochelle, N. Y.
GERTRUDE L. FRANTZ, Trustee for Horace G. FRANTZ	221 Cheyenne Rd., Colorado Springs, Colo.
GERTRUDE L. FRANTZ	221 Cheyenne Rd., Colorado Springs, Colo.
VIOLA F. GOOD	12 Laurel Pl., New Rochelle, N. Y.
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SADE E. L. OSBORNE	839 St. Marks Ave., Brooklyn, N. Y.
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RUTH A. P. SHEPPARD	155 Riverside Drive, New York, N. Y.
ETHEL F. TOMB	167 Lake Ave., Newton Centre, Mass.
GEORGE H. WHITELEY	905 S. Beaver St., York, Pa.
IDA O. WHITELEY	905 S. Beaver St., York, Pa.
GEORGE H. WHITELEY, JR.	121 W. Springettsbury Ave., York, Pa.
JAMES OSBORNE WHITELEY	122 W. Springettsbury Ave., York, Pa.

DE TREY & Co., LTD., is a corporation organized under the laws of England, with an authorized capital stock of 2,000,000 shares of One Pound each, ownership of which is scattered over a considerable part of Europe and includes a long list of names unknown to us, and probably a number of banks and other corporations.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

THE DENTISTS' SUPPLY COMPANY,  
J. R. SHEPPARD, Sec'y & Treas.

Sworn to and subscribed before me this 27th day of September, 1923.

[SEAL] EMELIE E. SCHAAD  
Notary Public, Westchester County

Certificate filed in N. Y. County

Clerk's No. 83; Register's No. 5264—My commission expires March 30, 1925.